

# ECB hazard data sources

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# 1

## Data sources for hazards

### 1.1 Coastal and river flooding

- Temperature and precipitation-based indicators will utilize data from the NASA NEX-GDDP project. The project provides spatially downscaled results from the 2030-2040 timeframe, using the highest emission pathway (RCP 8.5).
- Data for coastal and river flooding will be obtained from the European Commission's Disaster Risk Management Knowledge Centre (DRMKC). The Joint Research Centre (JRC) within the DRMKC also provides relevant damage functions for these hazards.
- The Emergency Events Database, maintained by Université Catholique de Louvain in Brussels, Belgium, will be another data source. This publicly available global database contains information on natural and technological disasters, including 142 flood events with recorded total damages.
- Additional data can be sourced from the European Flood Awareness System and the Dartmouth Flood Observatory.

### 1.2 Wildfires

- The Joint Research Centre (JRC) provides binary data on wildlife-urban interfaces. Additionally, data from the Fire Weather Index published by the Copernicus Climate Change Service can be utilized.
- Wildfire indicators rely on outputs from the NASA NEX-GDDP project. These outputs involve spatial downscaling of results from CMIP5 models, reaching a horizontal resolution of approximately 25 km x 25 km. Indicators are derived by comparing model results for the periods 1975-2005 and 2030-2040. Projections are based on the highest emission pathway (RCP 8.5).

### 1.3 Landslides

- Data can be recovered from Copernicus.

### 1.4 Subsidence

- Data can be recovered from Copernicus.

### 1.5 Windstorms

- The synthetic wind speed dataset from the Copernicus Climate Change Service will be utilized to source data. This dataset includes recalibrated historical windstorm data covering the period from 1986 to 2011. Return periods for windstorms are available at the NUTS 3 level.
- The development of the windstorm data was carried out in collaboration with researchers from the Windstorm Information Service (WISC) project, which is managed by the Copernicus Climate Change Service. The WISC project also provides damage functions specifically tailored for windstorms.

### 1.6 Water Stress

- Data sources will come from the World Resources Institute Aqueduct tool and European Environment Agency.

### 1.7 Drought

- Data can also be sourced from National Oceanic and Atmospheric Administration (NOAA) and the European Drought Observatory.

### 1.8 Hurricane

- Data will be recorded from the World Meteorological Organization.