

**Expert Forum for Producers and Users for climate change-related statistics**  
Geneva, 2-4 October 2018

*Session 3: Statistics on climate change*

## **EEA activities on climate change adaptation and disaster risk reduction: reports and Climate-ADAPT**

**Sergio Castellari**  
*European Environment Agency (EEA)*

European Environment Agency 

### **EEA activity on CCA in recent years:**

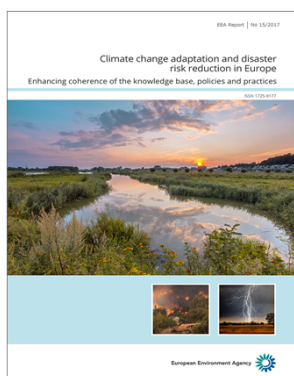
<b>EEA report</b>	<b>Publication</b>
EEA 2015 Tech. Report 'National monitoring reporting and evaluation of climate change adaptation in Europe'	Dec. 2015
ETC/CCA Technical Paper 'Monitoring, Reporting and Evaluation of national level adaptation in Europe: Lessons and experiences from other policy domains'	May 2017
EEA Report 'Climate change adaptation and disaster risk reduction in Europe - Enhancing coherence of the knowledge base, policies and practices'	Oct. 2017
ETC/CCA Tech. Paper 'Social vulnerability to climate change in European cities--state of play in policy and practice'	Feb. 2018
EEA Report 'National climate change vulnerability and risk assessments in Europe, 2018'	April 2018
EEA Report 'Sharing adaptation information across Europe'	June 2018
Social inequalities and climate change impacts, air quality, noise	Nov 2018
EEA Briefing Adaptation policies in transnational regions + ETC technical paper	Nov 2018
EEA report 'Unequal exposure and unequal impacts: Social vulnerability to air pollution, noise and extreme temperatures in Europe'	Jan. 2019
EEA Report 'Climate change adaptation in the agriculture sector'	2019
EEA Report 'Climate change adaptation in the energy sector'	2019
EEA Report MRE and national CC adaptation policies	2019/2020

# EEA Report

## Climate change adaptation and disaster risk reduction in Europe - Enhancing coherence of the knowledge base, policies and practices

European Environment Agency 

### Climate change adaptation and disaster risk reduction in Europe - Enhancing coherence of the knowledge base, policies and practices



The report presents:

- **Main global and European policies on CCA and DRR**
- **Knowledge base on weather- and climate-related hazards and their impacts**
- **18 case studies in Europe**
- **Good practice examples of linking CCA and DRR**
- **Opportunities and benefits from linking CCA and DRR in Europe**

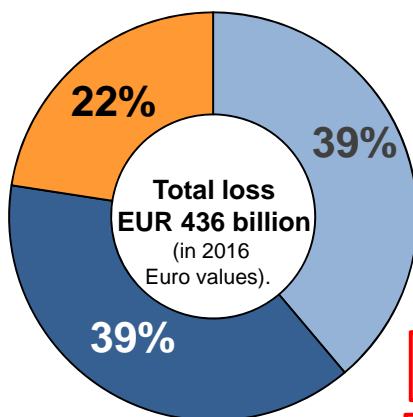
#### Benefits in enhancing coherence between CCA and DRR:

- |                                       |  |
|---------------------------------------|--|
| 1) Enhanced knowledge base            | 2) More effective and efficient policies |
| 3) Stronger collaboration             | 4) More efficient use of resources       |
| 5) Better prevention and preparedness |  |

European Environment Agency 

## 1980 – 2016: Economic losses in Europe (EEA MSs)

The highest overall economic losses in absolute terms were registered in **Germany, Italy and France**.



**1980 - 2016:** natural disasters caused by weather and climate-related extremes accounted for some **83%** of the monetary losses in **EU Member States**.

- **METEOROLOGICAL** (Storms, heavy precipitation, hail)
- **HYDROLOGICAL** (River floods, landslides, avalanches)
- **CLIMATOLOGICAL** (Heatwaves, droughts, forest fires)

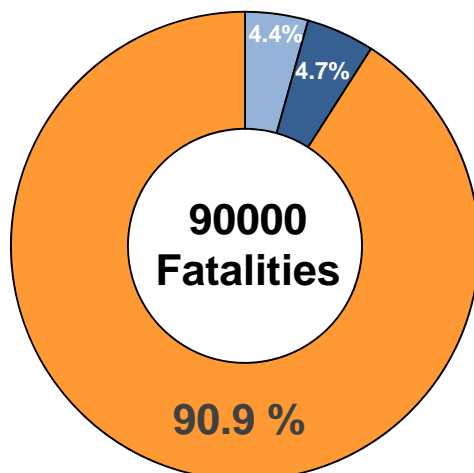
**Only 1/3 insured!**

**Average: 12 bln per year**

Source: NatCatSERVICE provided by Munich Re (2016)

European Environment Agency 

## 1980 - 2016: Fatalities in Europe (EEA MSs)

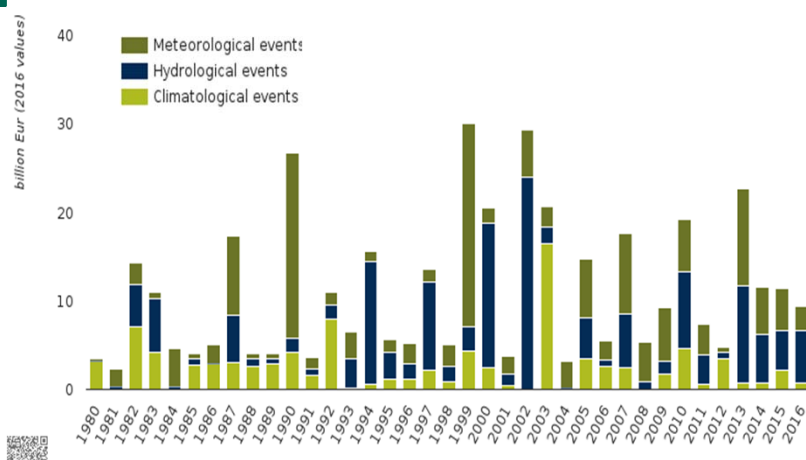


- Storms, heavy precipitation, hail
- River floods, landslides, avalanches
- Heatwaves, droughts, forest fires

Source: Munich Re, 2016

European Environment Agency 

## 1980-2016: Economic damages in EU28 (weather/climate)



- Increasing in populations, economic assets and developments in hazard-prone areas were the major cause of long-term increases in economic losses from weather/climate-related disasters.
- Observed increase in heavy precipitation in parts of Europe may have also played a role.
- Climate projections shows that climate change drivers becomes important.

European Environment Agency 

## Dealing with disasters: six good practice

- Delta Programme, the Netherlands:**  
*programmatic approach, adequate funding, long-term strategy, effective CCA and DRR integration, new adaptive planning approach "Adaptive Delta Management (ADM)" to reduce risk of overspending or underinvestment'.*
- Consorcio de Compensación de Seguros (CCS) Spain, French Catastrophes Naturelles (CatNat) France, Flood Reinsurance Scheme (Flood Re) UK:**  
*Insurance to combine not only risk transfer and mitigation in public-private cooperation and to create incentives for risk prevention and to help improve understanding of climate risks among citizens.*
- Switzerland:**  
*Good combination of national agenda setting and local implementation and integration, effective implementation of CCA and DRR strategies.*
- National Risk Assessments (e.g. UK):**  
*including more risks than only those related to weather and climate hazards, effective base for CCA and DRR, they provide a broader risk picture and give indications for tolerance thresholds.*
- City networks:**  
*to increase urban resilience and to motivate cities and to support capacity building for both CCA and DRR.*
- Financing nature-based solutions for CCA and DRR in European countries (e.g. European Investment Bank).**

European Environment Agency 

## Improving the relationship between CCA and DRR

EU, national and regional  
platforms

Hazard mapping and risk  
assessments

Climate services

Long-term national approaches

Nature-based solutions

Risk prevention financing

Monitoring and evaluation of  
policy



## EEA CCIV and Natural Hazards indicators

## EEA CCIV and Natural Hazards Indicators

- CSIO12 (Global and European temperature)
- CSIO42 (Economic losses from climate-related extremes)
- CSIO46 (Sea surface temperature)
- CSIO47 (Global and European sea level)
- CSIO53 (Arctic and Baltic sea ice)
- CLIM004 (Heavy precipitation)
- CLIM009 (Greenland and Antarctic ice sheets)
- CLIM047 (Heating and cooling degree days)

All indicators are updated on annual or biannual basis.

**CSIO42:** annual update based on **Munich Re data set** with data for all 33 EEA Members Countries since 1980 including data per country, year and hazard category.

This indicator is part of set of EU Indicators to measure the implementation of SDG13 "Climate Action".

European Environment Agency



## EEA Report: National climate change vulnerability and risk assessments in Europe 2018

European Environment Agency



## National climate change vulnerability and risk assessments in Europe 2018



- **First systematic review of ...**
  - how EEA member countries have assessed climate risks
  - how they used the assessment results for developing adaptation policies
- **Information sources:**
  - **Survey** completed by 24 (of 33) EEA member countries
  - Complemented with information from **Climate-ADAPT**
- **Aims:**
  - Facilitate learning between experts and policymakers involved in adaptation planning
  - Inform evaluation of **the EU Adaptation Strategy**

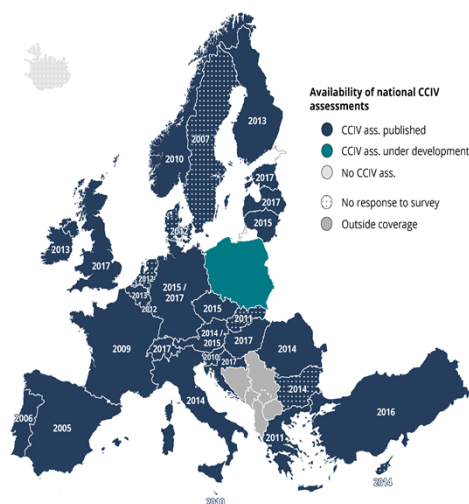
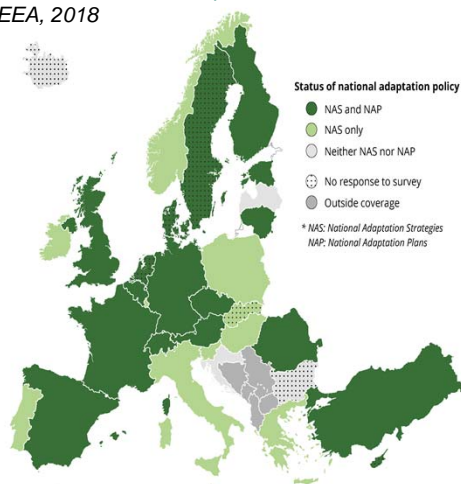
<https://www.eea.europa.eu/publications/national-climate-change-vulnerability-2018>

European Environment Agency



## Status of national adaptation policy and of national CCIV assessments in Europe

**25 EU Member States and 3 other EEA member countries** have adopted **NASS**.  
**15 EU Member States and 2 other EEA member countries** have developed **NAPs**.  
**EEA, 2018**



European Environment Agency



## Urban and social aspects of adaptation

ETC/CCA Technical Paper  
**“Social vulnerability to climate change  
 in European cities – state of play in  
 policy and practice”**

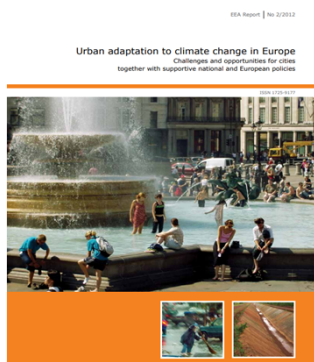


EEA Report (in progress)  
**“Unequal exposure and unequal impacts:  
 Social vulnerability to air pollution, noise  
 and extreme temperatures in Europe”**

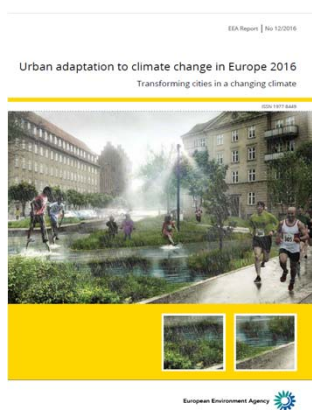
European Environment Agency 

## Urban Adaptation 2020 report

2012



2016



2020

Urban adaptation to  
 climate change in Europe  
 2020

European Environment Agency 



# Monitoring, reporting and evaluation (MRE) of CCA

## 2019 - 2020 MRE report

This report will focus on the following emerging topics:

- **NAS/NAP** and their update processes (policy frameworks)
- Knowledge generation and use, transfer and dissemination
- **Stakeholder involvement** (throughout the policy cycle)
- **Implementation of adaptation**
- **Monitoring, reporting and evaluation**
- **International aspects of adaptation**
- **Ecosystem-based adaptation (EbA)**
- **Climate services / Adaptation services**
- **Land-use, urban and maritime planning**

(specifically for Europe) build further on the **2017 UNEP GAP report** and links to **SDGs**, **SFDRR** and **Paris Agreement**.

## Climate change adaptation MRE indicators

- Development of robust and **comprehensive sets of adaptation indicators for MRE** is still rather rare:
  - Examples in database from **Austria (46)**, **Finland (21)**, **Germany (102)**, **UK (118)** and **Scotland**
- The **sectors** covered are partly defined by those defined as a priority in the **NAS / NAP**
- **Indicators classified as:**
  - input, process, output, outcome; and
  - exposure, sensitivity, adaptive capacity, composite vulnerability, hazard.
- For almost all indicators: **a descriptive/qualitative interpretation** integral part of the indicator;
- **Not all indicators have a quantitative aspect.**

Aim of the collection of indicators is **to stimulate mutual learning** and **providing examples to those countries building up an MRE-framework for their adaptation policy.**

European Environment Agency



## Climate-ADAPT: Evaluation and further enhancement



## EU Adaptation Strategy, Action 5: Further develop Climate-ADAPT

<https://climate-adapt.eea.europa.eu/>

- Aims to support organisations developing and implementing adaptation strategies, policies and actions
- Collaboration of **European Commission** and **EEA** since **2012**

### Context:

- Increased action at all governance levels
- Growth in knowledge and practice
- Changing information needs (policy cycle)



European Environment Agency 

## Understanding the actual user/provider audience

### Overall:

- **Increase in users by 5 times** (2.800 monthly users in 2013 to 14.100 in 2017)

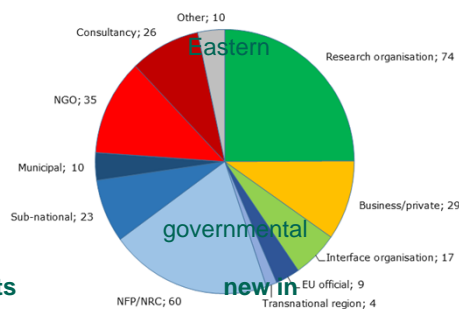
### Geographic origin:

- **All EEA countries**, but least by Central and European countries
- Also users outside Europe

### Type of users:

- **Use by intended target audience**
- **High share of organisations supporting decision-makers**
- **Less use by sectoral users and by experts adaptation**

- **Target dissemination** towards specific user groups (Eastern countries, sectoral users)
- **Increase support for new users**



European Environment Agency 

## From Climate-ADAPT evaluation

### First actions resulting from the evaluation:

- EEA Report *Sharing adaptation information across Europe* published in Q2 2018
- **Webinar** presenting main outcomes of the evaluation to the user/provider community in Q2 2018
- **Discussion:** the implementation of the outcomes with EEA member countries in the annual EEA Eionet workshop on adaptation (June 2018)
- **Discussion:** the outcomes relevant for the European Commission
- Early results of the evaluation used for the priority setting of 2018 work on Climate-ADAPT

### New IT development ongoing:

- Increase the structural coherence. Enhance the consistency among all the sections of the platform for users to improve the navigation and get a feeling of coherence and continuity.
- Improve the layout. Develop a new layout, with the maximum coherence with other EEA information system.
- Improve the usability. Enhance the user friendliness of the platform, the access to the information and the search function.
- Improve the provider interface.

European Environment Agency



All EEA report are available on-line:

<https://www.eea.europa.eu/>

# Thanks !

Email: [sergio.castellari@eea.europa.eu](mailto:sergio.castellari@eea.europa.eu)

European Environment Agency

