

Climate change and health

SGPP meeting 19 October 2021





The European green Deal: On the road to climate neutrality

- March 2020:
EU long-term strategy committing to **climate neutrality by 2050**
- March 2020:
Commission proposing **EU Climate Law**
- December 2020:
EU Leaders agreed to cut emissions **by 2030 by at least 55%**

Climate action - European Climate and Health Observatory: Objectives

- Improve the knowledge base for policy making and practice
- Connect and pool knowledge, expertise, tools and organisations
- Facilitate learning across countries
- Support the EU Green Deal, EU4Health and the new EU Adaptation Strategy



The Observatory – Launch on 4 March 2021



European
Climate and Health
Observatory

climate-adapt.eea.europa.eu/observatory/++aq++metadata/videos/keeping-healthy-in-a-changing-climate-launch-of-the-european-climate-and-health-observatory



climate-adapt.eea.europa.eu/observatory/++aq++metadata/publications/responding-to-the-health-risks-of-climate-change-in-europe/

European Climate and Health Observatory – Portal

European Climate and Health Observatory

We provide easy access to a wide range of relevant publications, tools, websites and other resources related to climate change and human health.

DISCOVER THE MAIN TOPICS AND TOOLS OF THE OBSERVATORY

The screenshot displays four main topic cards on a dark background with a path and trees. Each card has a blue header with an icon and a white footer with a 'Learn More' button.

- NEW INDICATORS**: View climate and health indicators from different trusted information providers.
- PARTNERS**: Discover who is contributing to the Observatory.
- COUNTRY PROFILES**: See how countries are addressing climate change adaptation in public health.
- RESOURCE CATALOGUE**: Search and access the Observatory's database containing case studies, publications, indicators, research projects and other.

Piotr Kwiatka, REDISCOVER Nature/EEA

The European Climate and Health Observatory is a joint initiative of the European Commission, the European Environment Agency and many other organisations.

The pilot version of the observatory focusses on existing resources from the various partners. Over time, the Observatory will develop new products and add further resources.

The screenshot shows a blue header with 'NEWS' and 'EVENTS' tabs. Below, there are two event listings:

- 5th European Climate Change Adaptation conference**
24 May 2021
- ECCA 2021 webinar: Climate change and health: promoting wellbeing through climate action**
26 May 2021

A 'More events >' link is visible at the bottom.

The screenshot shows a blue header with an icon of two people and a circular arrow. Below, the text reads:

Share your information

Find out how to contribute to the Observatory via Climate-ADAPT

climate-adapt.eea.europa.eu/observatory

European Climate and Health Observatory – Partnership

Observatory management group



European Commission

EUROPEAN COMMISSION



European Environment Agency

EUROPEAN ENVIRONMENT AGENCY

Observatory partners



World Health Organization
REGIONAL OFFICE FOR Europe

WORLD HEALTH ORGANIZATION - REGIONAL OFFICE FOR EUROPE




efsa
European Food Safety Authority

EUROPEAN FOOD SAFETY AUTHORITY



LANCET COUNTDOWN:
TRACKING PROGRESS ON HEALTH AND CLIMATE CHANGE

THE LANCET COUNTDOWN:
TRACKING PROGRESS ON HEALTH AND CLIMATE CHANGE



Copernicus
















COPERNICUS CLIMATE CHANGE SERVICE AND COPERNICUS ATMOSPHERIC SERVICE



ecdc
EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

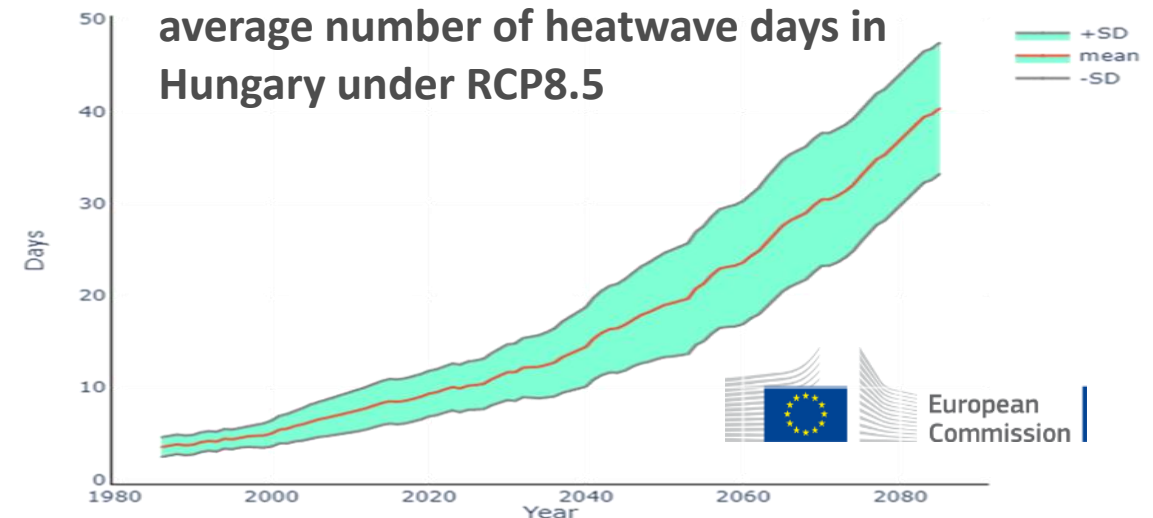
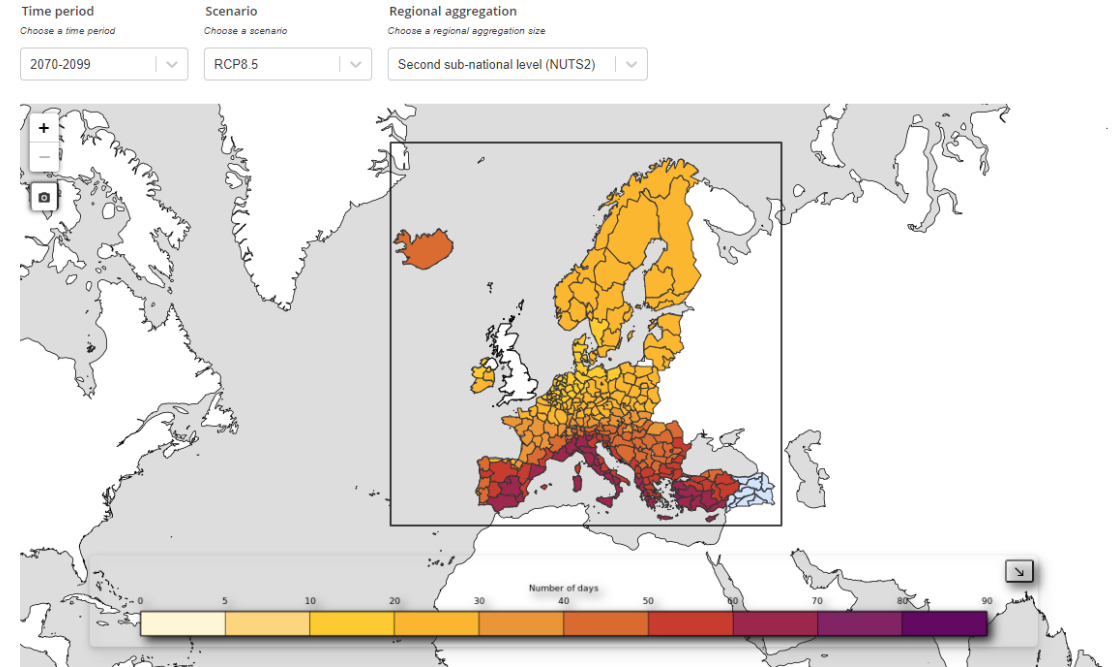
EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

The Observatory portal: indicators

 <p>European Environment Agency</p> <p>AIR POLLUTION DUE TO OZONE: HEALTH IMPACTS AND EFFECTS OF CLIMATE CHANGE</p> <p>Year: 2015 Source: EEA</p>	 <p>European Environment Agency</p> <p>VECTOR-BORNE DISEASES</p> <p>Year: 2016 Source: EEA</p>	 <p>European Environment Agency</p> <p>EXTREME TEMPERATURES AND HEALTH</p> <p>Year: 2016 Source: EEA</p>	 <p>European Environment Agency</p> <p>FLOODS AND HEALTH</p> <p>Year: 2016 Source: EEA</p>
 <p>European Environment Agency</p> <p>WATER- AND FOOD-BORNE DISEASES</p> <p>Year: 2016 Source: EEA</p>	 <p>Lancet Countdown</p> <p>VULNERABILITY TO EXTREMES OF HEAT IN EUROPE</p> <p>Year: 2020 Source: Lancet Countdown</p>	 <p>Lancet Countdown</p> <p>CLIMATE SUITABILITY FOR INFECTIOUS DISEASE TRANSMISSION - DENGUE</p> <p>Year: 2020 Source: Lancet Countdown</p>	 <p>Lancet Countdown</p> <p>CLIMATE SUITABILITY FOR INFECTIOUS DISEASE TRANSMISSION - VIBRIO</p> <p>Year: 2021 Source: Lancet Countdown</p>
 <p>Lancet Countdown</p> <p>EXPOSURE OF VULNERABLE POPULATIONS TO HEATWAVES</p> <p>Year: 2021 Source: Lancet Countdown</p>	 <p>Copernicus</p> <p>THERMAL COMFORT INDICES - MEAN RADIANT TEMPERATURE, 1979-2019</p> <p>Year: 2021 Source: Copernicus Climate Change Service</p>	 <p>Copernicus</p> <p>THERMAL COMFORT INDICES - UNIVERSAL THERMAL CLIMATE INDEX, 1979-2019</p> <p>Year: 2021 Source: Copernicus Climate Change Service</p>	 <p>Copernicus</p> <p>HEALTH HEATWAVE (HIGH TEMPERATURE AND HUMIDITY), 1971-2099</p> <p>Year: 2021 Source: Copernicus Climate Change Service</p>
 <p>Copernicus</p> <p>FIRE WEATHER INDEX - MONTHLY MEAN, 1979-2019</p> <p>Year: 2021 Source: Copernicus Climate Change Service</p>	 <p>Copernicus</p> <p>CLIMATIC SUITABILITY FOR THE TIGER MOSQUITO - SUITABILITY INDEX, 1971-2099</p> <p>Year: 2021 Source: Copernicus Climate Change Service</p>	 <p>Copernicus</p> <p>CLIMATIC SUITABILITY FOR THE TIGER MOSQUITO - SEASON LENGTH, 1971-2099</p> <p>Year: 2021 Source: Copernicus Climate Change Service</p>	

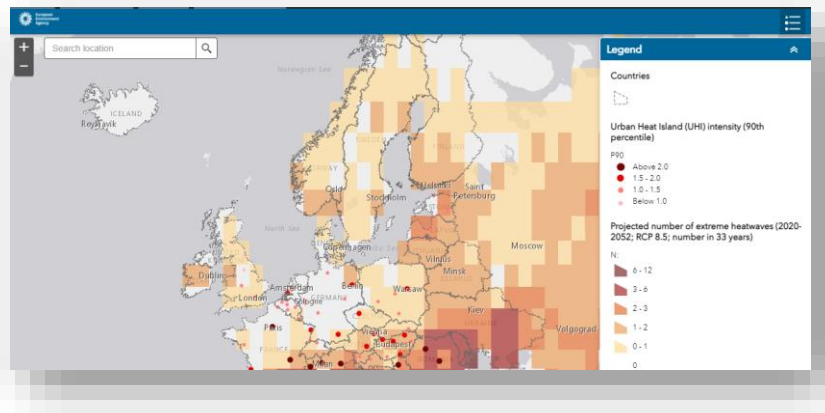
Number of health-related heatwave days - Explore index

[Go back](#)

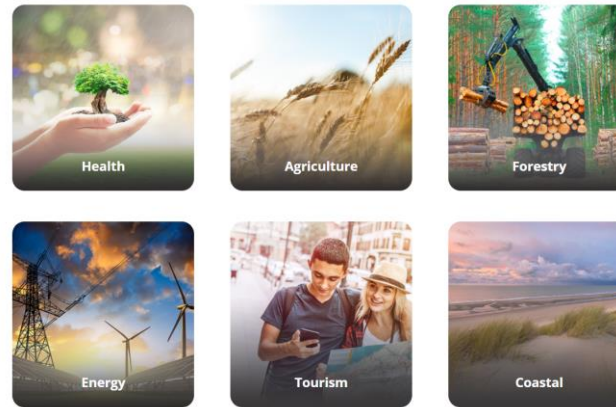


Product(s)

Urban Adaptation Map Viewer



Climate Data Explorer



Case studies

The screenshot shows a case study page for West Nile virus (WNV) in Greece. The page includes a title, a small map of Greece, and a detailed description of the virus and its impact. It also lists keywords, the date of creation (2021), and the geographic characterization (Europe).

Case studies

West Nile virus infection prevention and control measures in Greece

West Nile virus (WNV) is a vector-borne pathogen, which can infect humans, mammals (e.g., horses) and birds. Its transmission cycle is related to the interactions between pathogen, vector, vertebrate hosts, and the environment. Weather conditions have direct and indirect influences on this vector; changes in climatic conditions (temperature, precipitation, relative humidity, and winds) could lead to an increased spread of WNV also in areas that currently are not severely affected.

WNV infection cases are recorded - on an annual basis - in several European countries. In Greece, the first WNV infection outbreak was recorded in 2010, in the region of Central Macedonia (northern Greece). In the following years, the virus spread, with cases recorded in various regions. Further cases of WNV infection are expected in the future. In Greece, the surveillance of human WNV infection is annually implemented since 2010 (in the period May - November) by the Hellenic National Public Health Organization (NPHO). The goal is to promptly identify human cases of WNV infection and monitor their temporal and geographical distribution, in order to guide targeted prevention measures. In the long term, surveillance aims to quantify the disease burden, and identify seasonal, geographical, and demographic patterns, and populations at risk. In addition, enhanced surveillance of animal WNV infection (in horses and wild birds) is also implemented by the national animal health authorities.

Keywords: Infection, Surveillance, West Nile Virus, early warning, vector-borne disease

Health impact: Infectious diseases

Date of creation: 2021

Governance level: National

Geographic characterization: Europe

Climate and health indicators

The indicators are presented in a grid of six cards, each with the EEA logo and a title:

- AIR POLLUTION DUE TO OZONE: HEALTH IMPACTS AND EFFECTS OF CLIMATE CHANGE** (Year: 2015, Source: EEA)
- VECTOR-BORNE DISEASES** (Year: 2016, Source: EEA)
- EXTREME TEMPERATURES AND HEALTH** (Year: 2016, Source: EEA)
- WATER- AND FOOD-BORNE DISEASES** (Year: 2016, Source: EEA)
- VULNERABILITY TO EXTREMES OF HEAT IN EUROPE** (Year: 2020, Source: Joint Country Reports)
- CLIMATE SUITABILITY FOR INFECTIOUS DISEASE TRANSMISSION - DENGUE** (Year: 2020, Source: Joint Country Reports)

Country profiles

The screenshot shows the France country profile page, featuring the French flag and the text "France". Below the title, there is a section for "Information from MMR reporting. Country profile on Climate-ADAPT".

Information from MMR reporting. Country profile on Climate-ADAPT

Within the frame of the **second National Adaptation Plan (NAP-2)**, a resource centre for climate change adaptation will be developed, making the best use of new technologies to facilitate shared learning, access to best practices and a mapping presentation of actors, especially at the territorial level. The centre will cover the following topics: health (including at work), water, agriculture, forestry, soils, biodiversity, natural hazards, urban planning, mobility, fisheries and aquaculture, tourism, the financial sector.

Information from WHO Publication **Public health and climate change adaptation policies in the European Union**

France has developed a strategic framework on climate change health adaptation and action plans. The national climate change vulnerability, impact and adaptation assessment includes health.

The Ministry of Environment oversees the entire **National Adaptation Plan**, but the country's Public Health Agency is in charge of climate change

...and more

The Observatory portal: early warning systems

European early warning systems

Early warning systems for climate-related risks to health and wellbeing must rely on a sound scientific and technical basis that enables a focus on regions and population groups most at risk. Early warning systems include detection, analysis, prediction, and then warning dissemination followed by response decision-making and implementation. Such systems warn stakeholders and vulnerable populations about climatic hazards such as tropical cyclones, floods, storms, avalanches, tornadoes, severe thunderstorms, extreme heat and cold, forest fires, drought, etc. To be effective and complete, an early warning system needs to comprise four interacting elements namely: (i) risk knowledge, (ii) monitoring and warning services, (iii) dissemination and communication and (iv) response capability.

In Europe, there is a considerable experience with early warning systems, especially for flood and flash-flood risk, storms, forest fires, heatwaves and droughts. Early warning systems are directly relevant for diverse sectors that are primarily affected by climate-related risks, including public health, disaster risk reduction, agriculture, forestry, transport and energy.

Multi-hazard warning systems

Some early warning systems provide services and products for several climate-related risks.

Meteoalarm is a joint effort from **EUMETNET** (The Network of European Meteorological Services). It provides alerts in Europe for extreme weather events, including heavy rainfall with risk of flooding, severe thunderstorms, gale-force winds, heat waves, forest fires, fog, snow or extreme cold with snowstorms, avalanches or severe coastal tides.

The **Copernicus Emergency Management Service (CEMS)** operated by the Joint Research Centre of the European Commission provides access (among others) to key European early warning systems, in particular the **European Flood Awareness System (EFAS)**, the **European Forest Fire Information System (EFFIS)**, and the **European Drought Observatory (EDO)**. It also links to the global versions of these early warning system (**GloFAS**, **GDO**, **GWIS**) and to the **Global Disaster Alert and Coordination System (GDACS)** for tropical cyclones. These versions cover the overseas areas of Europe that are often affected by extreme events.

Heat and health

Europe has experienced several extreme summer heatwaves since 2000, which have led to high mortality and socio-economic impacts. The frequency of extreme heat events and their corresponding effects on human health and wellbeing are projected to increase substantially in a warming climate. The joint collaboration of institutional agencies and multidisciplinary approaches is essential for a successful development of heat-health warning systems and action plans, which can reduce the impacts of extreme heat on the population.

The **Heat-Shield project** addresses the negative impact of increased workplace heat stress on the health and productivity. The project has developed a **MapViewer**, which provides a 4-week heat wave forecast for Europe, focussing on occupational health. The project has also produced an **Overview of Existing Heat-Health warning Systems in Europe**, which provides a state-of-the-art review of 16 European heat-health warning systems and heat-health action plans.

The **EuroHEAT portal** provides an online heatwave forecast for Europe. It displays daily forecasts of heatwave probability (0–100 %) per NUTS1-Region for the upcoming ten days in a colour-coded map. The tool is no longer actively maintained, but it continues to be operational and is supplied with up-to-date climate data.

Climate-sensitive infectious diseases

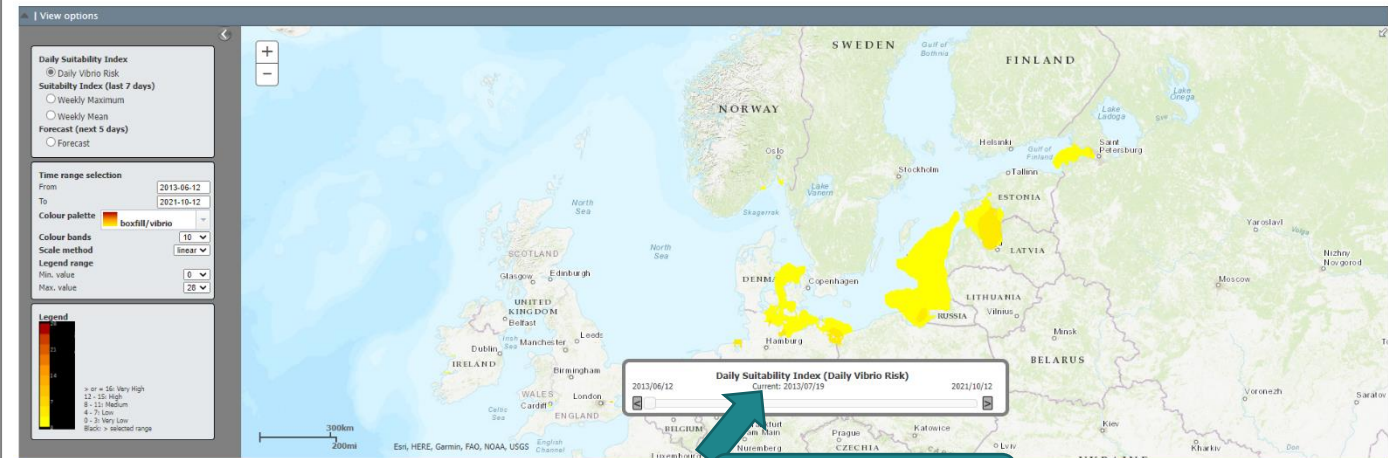
Monitoring changes in climatic and environmental drivers of infectious diseases can help anticipate, or even forecast, an upsurge of infections. Climate change can shift the geographical ranges of vector-borne diseases in Europe, thus early warning is becoming even more important.

The **Vibrio Map Viewer** developed by the **European Centre for Disease Prevention and Control (ECDC)**, which is hosted on the **ECDC Geportal**, provides daily updated forecasts on Vibrio suitability for European coastal areas.

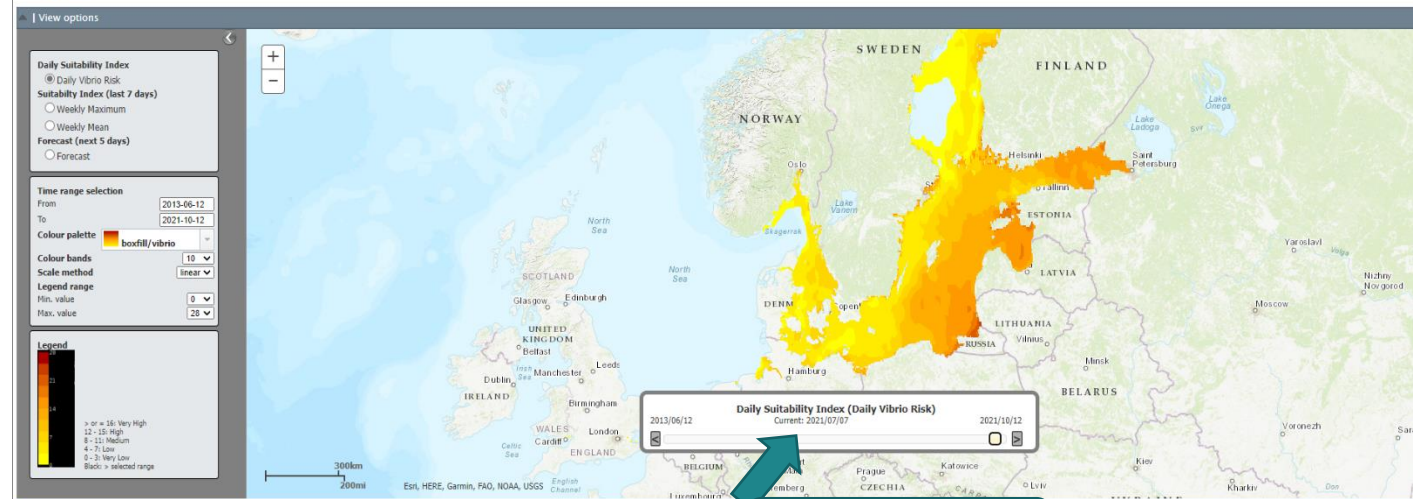
European pollen information services

Rising temperatures caused by climate change mean that trees and other plants bloom earlier or for longer, prolonging the suffering of many people with pollen allergies.

The **polleninfo** portal provides daily updated pollen forecasts and allergy risk assessments. It has been developed in partnership between the **European Aeroallergen Network (EAN)** and the **Copernicus Atmosphere Monitoring Service (CAMS)**.



July 2013



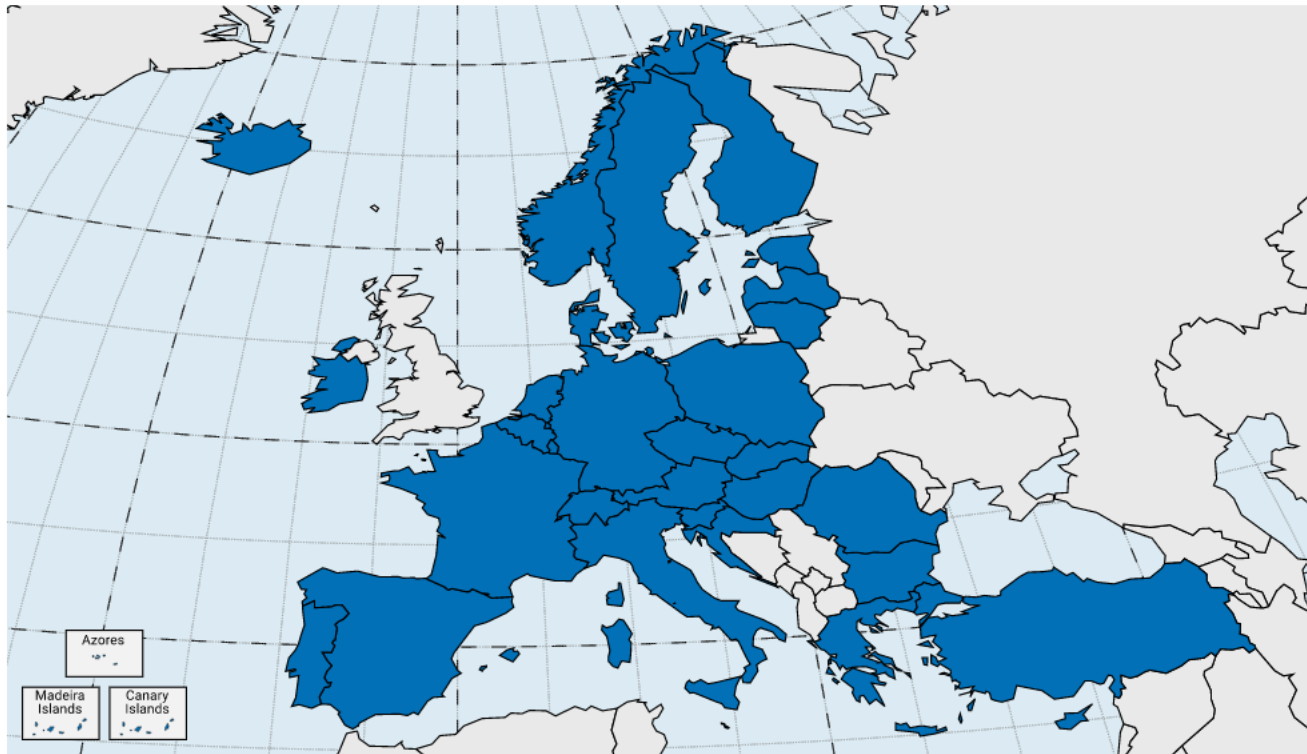
July 2021



The Observatory portal: country profiles

Country profiles

Home > Policy context > Country Profiles



Austria

The sources used to compile the health and adaptation information for country profiles vary across countries. For EU Member States, information is based on their 2019 reporting under the [EU Greenhouse Gas Monitoring Mechanism Regulation](#) (MMR reporting; see [Climate-ADAPT Country pages](#)), the [Adaptation preparedness scoreboard country fiches](#) and the WHO study on [Public health and climate change adaptation policies in the European Union](#). Information sources for non-EU member countries of the EEA are more limited.

Information from MMR reporting. [Country profile on Climate-ADAPT](#)

The [Austrian National Adaptation Strategy](#) (NAS, 2017) contains a qualitative vulnerability assessment for nine sectors, including the [health sector](#).

A [national adaptation plan](#) (NAP) was revised in 2016 and presents a catalogue of 135 adaptation options for 14 areas of action. Health is one of the areas of action. The integration of adaptation into sectoral policies and programmes, and thus mainstreaming, is increasing, with practical examples, including examples from the health sector.

The [Austrian assessment report of 2014](#) contains a vulnerability assessment and a section discussing the impact of climate change on health. The first [special report addressed health, demography and climate change](#) and was published in September 2018.

Information from [Adaptation preparedness scoreboard Country fiches](#)

Institutional barriers and lack of political momentum currently hinder the implementation of cornerstone policies that include adaptation measures at sectoral level (e.g. in health and transport).

Several recommendations proposed under relevant sectors (including the health sector) in the NAP involve the insurance sector and refer to it as a key actor.

Information from WHO Publication [Public health and climate change adaptation policies in the European Union](#)

Austria is among those countries that have developed national climate change vulnerability, impact and adaptation assessments. It has developed strategic frameworks and action plans for health-focused climate change adaptation. National policies (strategies or plans) on health and climate change have also been developed. Key policies and strategies reflect climate change and health considerations.

Several health assessments have been conducted as part of the NAS, covering hazards, such as heat risks, vector spread potential and allergenic pollens.

In 2012, the health targets for Austria were approved by the Federal Health Commission of Austria and the Austrian Council of Ministers. The overall objective was to improve the health of all people living in the country, irrespective of their level of education, income or situation in life. One specific health target deals with "securing sustainable natural resources such as air, water and soil and healthy environments for future generations" and discusses climate change adaptation.

A national mosquito surveillance system has been implemented with integrated cooperation between government agencies, human and veterinarian health institutions, the national reference laboratory and blood donor system. Surveillance of vector-borne infections is included, in addition to climatic and environmental aspects relevant to their spread and continuous monitoring of the circulation of etiologic agents.

WHO case studies from [publication Public health and climate change adaptation policies in the European Union](#)

Operation of the national heat protection plan

An Austrian heat protection plan was prepared and put into action in 2017, led by the Ministry of Health and Women's Affairs. Government institutions at the national and regional levels were involved in its elaboration and worked together, taking on various roles during different stages of the plan's operation. Other actors involved included health professionals, hospitals and other emergency staff. The plan gives meteorological baseline information for heat warnings, provided by the National Meteorological Service. The Ministry of Health and Women's Affairs sets out

<https://climate-adapt.eea.europa.eu/observatory/policy-context/country-profiles>

The Observatory Portal: resource catalogue



About ▾ Policy context ▾ Evidence on climate and health ▾ Resource catalogue ▾ Publications and outreach ▾

News Events

Observatory resource catalogue

Home > Resource catalogue > Complete catalogue

- Case studies (11)
- Guidance (17)
- Indicators (16)
- Information portals (20)
- Publications and reports (108)
- Research and knowledge projects (47)
- Tools (9)
- Videos (1)

What are you looking for?

Results 1 - 12 of 229

Display the results as [List] [Grid] [Table]

Order [Newest]

Mental health and the environment: How European policies can better reflect environmental degradation's impact on people's mental health and well-being

Publications and reports

Mental health is an essential component of human well-being, however mental disorders such as depression and anxiety affect more than one in six EU citizens representing a significant personal and societal burden. In addition, poor mental health is estimated to cost Europe over €600 billion/year or over 4% of GDP of which a third goes to direct health care spending. It is widely documented that human mental health and well-being emerges from a complex interplay between genetic, psychological, social and lifestyle factors and environmental exposures. Following a growing body of evidence on the poor state of our environment, not least our inability to preven...

Climate Anxiety

Publications and reports

Type of item

Count Value	Match any
11 Case studies	<input type="radio"/>
17 Guidance	<input type="radio"/>
16 Indicators	<input type="radio"/>
20 Information portals	<input type="radio"/>
108 Publications and reports	<input type="radio"/>
47 Research and knowledge projects	<input type="radio"/>
9 Tools	<input type="radio"/>
1 Videos	<input type="radio"/>

Observatory resource catalogue

Home > Resource catalogue > Complete catalogue

- Case studies (2)
- Guidance (0)
- Indicators (0)
- Information portals (1)
- Publications and reports (9)
- Research and knowledge projects (3)
- Tools (1)
- Videos (1)

Germany

Results 1 - 12 of 16

Display the results as [List] [Grid] [Table]

Order [Relevant]

2019 Monitoring Report on the German Strategy for Adaptation to Climate Change

Publications and reports

Within the framework of the German Strategy for Adaptation to Climate Change (DAS), the Federal Government is now presenting the second monitoring report in 2019. It informs the public and decision-makers in all areas of social life about the observed consequences of climate change. The message of the monitoring report is that the future has already reached us. Germany is in the midst of global warming, with far-reaching consequences for the environment, society and health. Urgent action must be taken to counter these consequences. This Report underpins the impacts of climate change with solid scientific data, at the same time as provi...

Improving the Smart Control of Air Pollution in Europe (iSCAPE)

Research and knowledge projects

The iSCAPE project aims to integrate and advance the control of air quality and carbon emissions in European cities in the context of climate change through the development of sustainable and passive air pollution remediation strategies, policy interventions and behavioral change initiatives. The project addressed the problem of reducing air pollution at target receptors with an innovative SME-led approach, focusing on the use of 'passive control systems' in urban spaces. Improvements in air quality, microclimate and behavioral aspects of city dwellers were achieved by applying real physical interventions on the urban fabric to all...

The Heat Health Warning System in Germany—Application and Warnings for 2005 to 2019

Publications and reports

Intense heat episodes that have negative impact on human health can be forecasted based on an assessment of the atmospheric environment in terms of human thermal stress. The example of the German heat health warning system (HHWS) shows the feasibility of taking into account in a routine application not only air temperature but all relevant meteorological and important non-meteorological parameters influencing the thermal state of the human body. It is widely accepted that heat waves will occur more often, more intensely, and with increasing length in the future. With respect to these expectations, both the human-biometeorological component of the "heat he...

Climate change adaptation and disaster risk reduction in Europe. Enhancing coherence of the

Type of item

Count Value	Match any
2 Case studies	<input type="radio"/>
1 Information portals	<input type="radio"/>
9 Publications and reports	<input type="radio"/>
3 Research and knowledge projects	<input type="radio"/>
1 Tools	<input type="radio"/>

Health impacts

Observatory partner

Year

Filters applied

- Tools
- Research and knowledge projects
- Publications and reports
- Information portals
- Case studies

Council Conclusions of June 2021 on the new EU Strategy on Adaptation to Climate Change

WELCOMES the establishment of the European Climate and Health Observatory; STRESSES the need to further define the responsibilities and objectives of the Health observatory, also in relation to existing and future institutions and RECOGNIZES the importance of the One Health approach;

What next?

Work plan 2021-2022

Proposal to concentrate on two major climate related health risks:

- **Climate-sensitive infectious disease threats** (such as Lyme disease, Dengue or West Nile fever) – *possible link with HERA*
- **Heat stress** (leading to death, ill health and reduced work capacity; and exacerbated by air pollution and the projected increase of pollen and other allergens) - *updated country profiles and heat health guidance with the WHO*

Stakeholder involvement through the HPP/ launch of the new thematic network in November 2021