QUICK
GUIDE

DEALING WITH
WILDFIRES EU-WIDE
KNOWLEDGE FOR LOCAL AND
REGIONAL AUTHORITIES

DEALING WITH WILDFIRES

EU-WIDE KNOWLEDGE FOR LOCAL AND REGIONAL AUTHORITIES

WHAT IS A WILDFIRE?

Wildfires are uncontrolled fires that may rapidly spread across vegetation, threatening ecosystems, infrastructures, and human lives. Most wildfire ignitions are caused by human activity, including sparking from power lines or railroads, but also occur naturally under given climatic conditions, which often aggravate them. Prolonged dry spells particularly increase the risk of wildfires, but also other factors, such as rain and wind patterns, vegetation, landscape structure, and forest management practices, largely impact the risk of wildfire outbreaks. While regular natural fires are beneficial in many ecosystems (e.g. contributing to biodiversity and forest regeneration), the intensity and frequency of damaging wildfires are growing.

Wildfires can occur anywhere in Europe, particularly in dry areas with abundant vegetation, and during hot and windy periods. Mediterranean countries and regions have long dealt with wildfires, but climate change is now increasing the risk of wildfires in countries like Germany, Poland, Norway and Sweden. At the same time, wildfire events in Southern Europe are becoming more extreme.

KEY FACTS & RECENT EVENTS

According to the Joint Research Centre,

> ⚠️ **over 60,000 forest fires occur in the EU each year.**

On average, they burn half a million hectares and cause economic losses estimated at around EUR 2 billion. Those figures can vary significantly depending on the severity of the fire season. In 2017, for example, an area of 1 million hectares was affected with an estimated economic loss of EUR 10 billion.

Recent Wildfires:

2017 Europe experienced its most severe wildfires since 2000, when the European Forest Fire Information System (EFFIS) began recording them. They burnt approximately 1 million hectares across the EU countries, including 240,000 hectares of Natura 2000 and other protected areas. In total, 773 wildfires occurred in the EU Member States, with southern European countries being the most affected.

2022 Europe experienced its second-worst wildfire season in recent history, with nearly 900,000 hectares of land burned. Fires occurred in all EU Member States and were mapped in every country except for Luxembourg. The largest burnt areas were recorded in Spain, Portugal and Italy.

2023 the largest single wildfire in EU history burned more than 96,000 hectares of land in Alexandroupolis, Greece.

FINLAND

SWEDEN

ESTONIA

DENMARK

LITHUANIA

LATVIA

IRELAND

THE NETHERLANDS

POLAND

BELGIUM

GERMANY

CZECHIA

AUSTRIA

SLOVAKIA

SLOVENIA

CROATIA

ROMANIA

FRANCE

ITALY

BULGARIA

SPAIN

PORTUGAL

GREECE

CYPRUS

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Key Impacts on Your Community

Wildfires can have long-lasting direct and indirect impacts across economic sectors and borders, especially on:

Ecosystems and Biodiversity:

Wildfires can destroy forests, grasslands, and other ecosystems. The loss of vegetation, along with increased sediment and ash in water bodies, also leads to degradation and threatens freshwater supplies.

Tourism:

Areas known for their natural beauty may see a decline in tourism after a wildfire event. The destruction of natural landscapes and the perception of danger can deter visitors, impacting local businesses that rely on tourism.

Public Health:

The smoke and ash from wildfires can significantly impact air quality, leading to respiratory and cardiovascular problems. Vulnerable populations, such as children, the elderly, and those with pre-existing health conditions, are particularly at risk.

Economy and Infrastructure:

Wildfires can cause extensive damage to infrastructure, like homes, roads, and utilities. This can lead to significant economic losses, immediate damage and long-term impacts, such as reduced property values and increased insurance costs.

Agriculture and Forestry:

These sectors can suffer direct losses from wildfires, as crops and timber resources are destroyed. The agricultural sector may also face challenges from soil degradation and loss of livestock.

HOW TO TAKE ACTION

Understand your wildfire risks: data, maps and tools

ThinkHazard! allows you to quickly assess the wildfire risk in your area by simply typing the name of your location.

In 1999, the Joint Research Centre (JRC) and the European Commission set up the European Forest Fire Information System (EFFIS), which provides comprehensive information on wildfires in Europe.

It includes a current situation viewer with the most up-to-date information on the current fire season in Europe, a long-term fire weather forecast (monthly and seasonal forecasts of temperature and rainfall anomalies), as well as a wildfire risk viewer which considers the fire hazard and the vulnerability on three categories: people, ecological, and economic values. EFFIS also provides data and statistics on current and historic fire events.

FIRE-RES has developed a pan-European Fuel Map Server to develop risk assessments that indicate inflammable biomass.

IMPLEMENT CONCRETE ACTIONS

The European Commission Expert Group on Forest Fires published a guidebook on land-based wildfire prevention with principles and experiences on managing landscapes, forests and woodlands.
The guidebook highlights prevention measures for national, regional and local levels to make landscapes and communities more resilient to wildfires. It also lists concrete examples of measures implemented in the EU.

Find some recommended actions for reducing the impact of wildfires in this database, each of them describing costs and benefits, legal aspects for implementation and referring to implemented case studies. Some of the actions which can be implemented at the urban or municipal level are:

Establishment of early warning systems, like in Tatabánya, Hungary, where a fire-weather index helps the fire brigade prepare for and respond to wildfire events.

Adapting fire management plans, such as the integrated approach of prescribed fire and grazing, to make forests climate resilient and prevent severe fire events in Viseu Dão Lafões, Portugal.

Preventing climate-related forest damage by implementing strategies like green firebreaks, prescribed burning, managed grazing and planting fire-resistant species.

Climate-resilient Forest Management, including forest education. Informing visitors, neighbouring farms or landowners about safe practices in and around forests.

Water reuse, like using recycled water in Riba-Roja de Túria (Spain) to create green firebreaks for mitigating forest fire risks.

Assess your planned actions with this self-assessment tool to avoid negative effects that increase vulnerability, diminish well-being or undermine sustainable development. It's available in 10 languages!
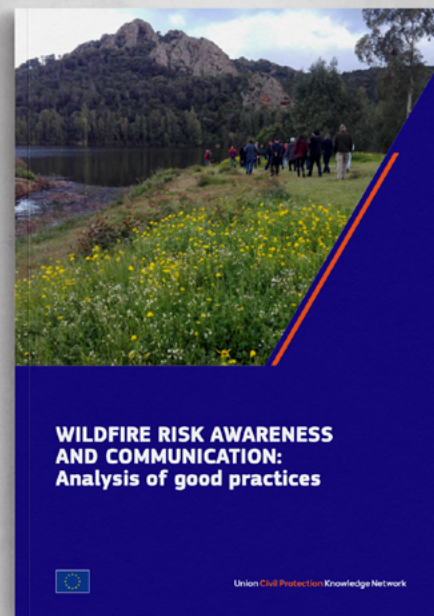
FIND FUNDING OPPORTUNITIES

Access EU and national funding options via **MIP4Adapt** to support your wildfire adaptation strategies.

> Engage stakeholders and citizens in decision-making and action

In 2024, the European Commission published a new **good practice guide on Wildfire Risk Awareness and Communication** on how to raise awareness among different stakeholder groups according to their specific needs and challenges.

Check the MIP4Adapt **Do-It-Yourself Manual on Engaging Stakeholders and Citizens in Climate Adaptation** to learn how to involve communities in preparing for and mitigating the effects of wildfires.

The **SILVANUS Wildfire Citizen App** includes educational content, such as tips, quizzes and comprehensive guidelines on citizen preparation, response and recovery, safeguarding the communities and environmental wellbeing. The app features an interactive map that allows users to report fire incidents, including descriptions and optional photos.

BUTTON

BUTTON

WILDFIRE RISK AWARENESS AND COMMUNICATION: Analysis of good practices

Union Civil Protection Knowledge Network

TransformAr

Accelerating and upscaling transformational adaptation in Europe: Demonstration of water-related innovation packages

PLAYBOOK

This project has received funding from the European Union's H2020 innovation action program under grant agreement 101036683

PRACTICAL EXAMPLES FOR LOCAL AND REGIONAL AUTHORITIES

For inspiration from practical examples,

Find over 20 case studies from European countries on the EU Climate ADAPT Resource catalogue, e.g. in Cyprus and Greece, where an Integrated Forest Fire Analysis System addresses the rising wildfire risk in Mediterranean forests. Or the case study of Occhito Lake in Puglia, Italy, in which innovative environmental and forestry planning of Occhito Lake improved collaborative governance mechanism as well as the protective and environmental functions of the forest. The plan suggests implementing Nature-based Solutions that preserve forest ecosystem services and valorise rural areas.

Check out the case-study section within the Firelogue Knowledge Hub to find a map that presents fire-related case studies around the world. Explore The Lessons on Fire and stay informed with the latest fire-related information from the Knowledge Hub.

Above: Close view of the meteorological stations installed in the two pilot areas. Below: Meteorological station installed in Grammos. ©CALCHAS (LIFE08 ENV/GR/000558) "Development of an integrated analysis system for the effective fire conservancy of forests".

NEED HELP?

✉ **Contact us:**

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