



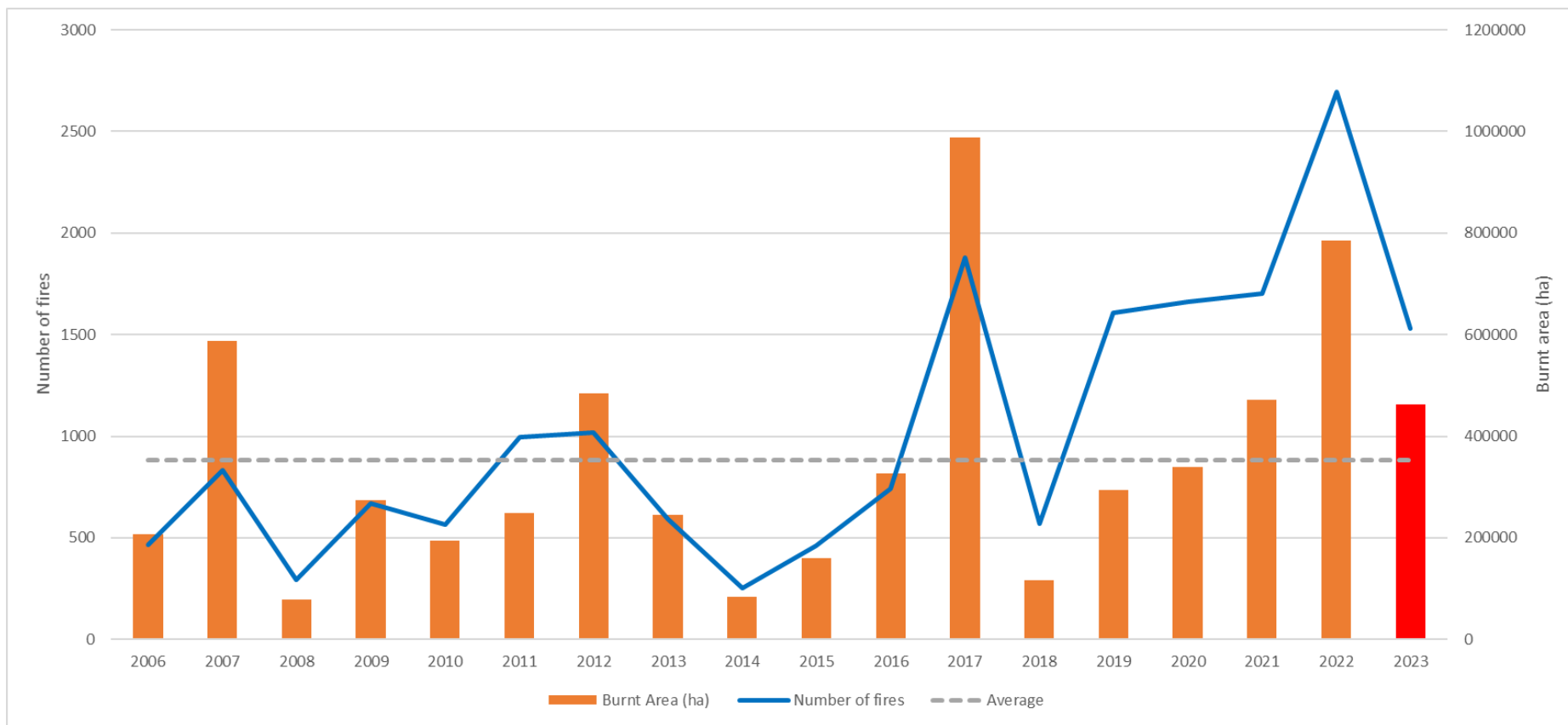
Wildfires in the European Union

2023

Outline

1. General trends of burnt areas and number of fires
2. Trends of fires by fire size
3. Contribution of fires of different sizes to the total burnt area
4. Trends of number of fires, burnt areas and fire danger in northern, central and southern EU
5. Wildfire emissions
6. Wildfires larger than 30 ha mapped in EFFIS in 2023 – current situation in the EU
7. Area burnt in Natura 2000 sites
8. Economic losses by wildfires
9. Summary

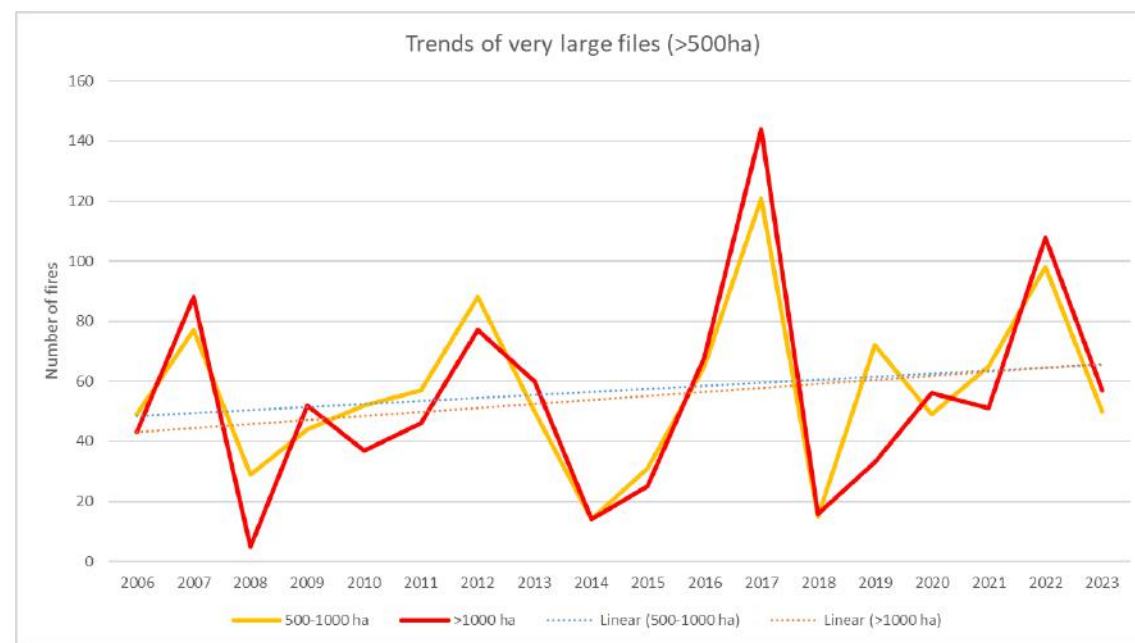
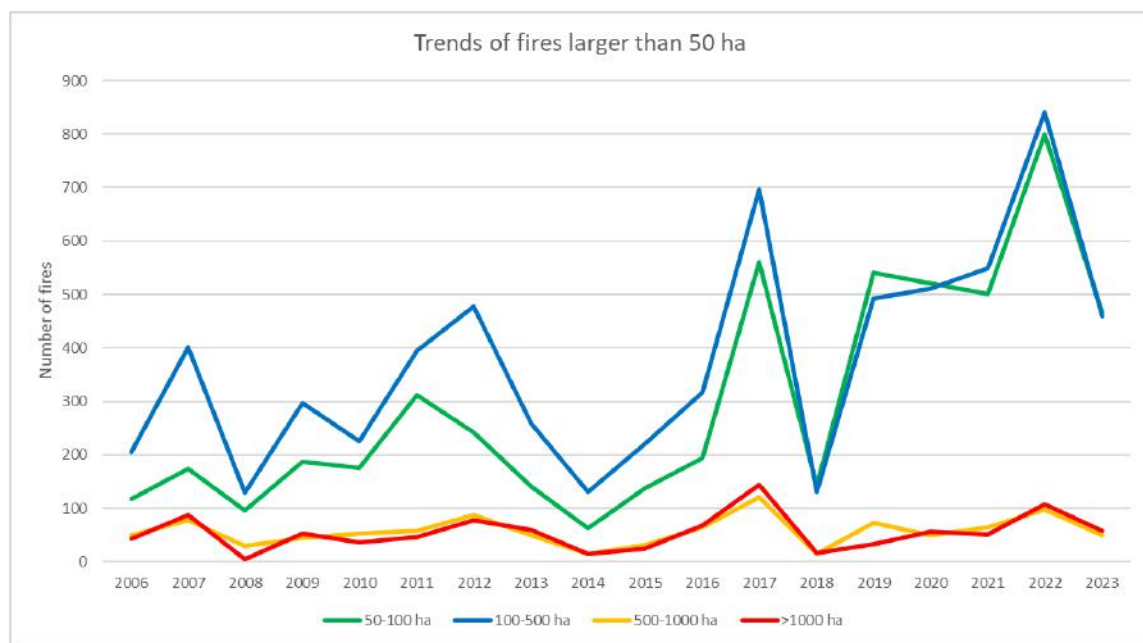
General trends in the period 2006-2023



Source: Joint Research Center (JRC) / European Forest Fire Information System (EFFIS)

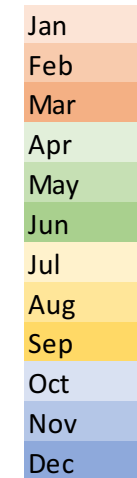
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General trends in the period 2006-2023 – number of fires per fire size class

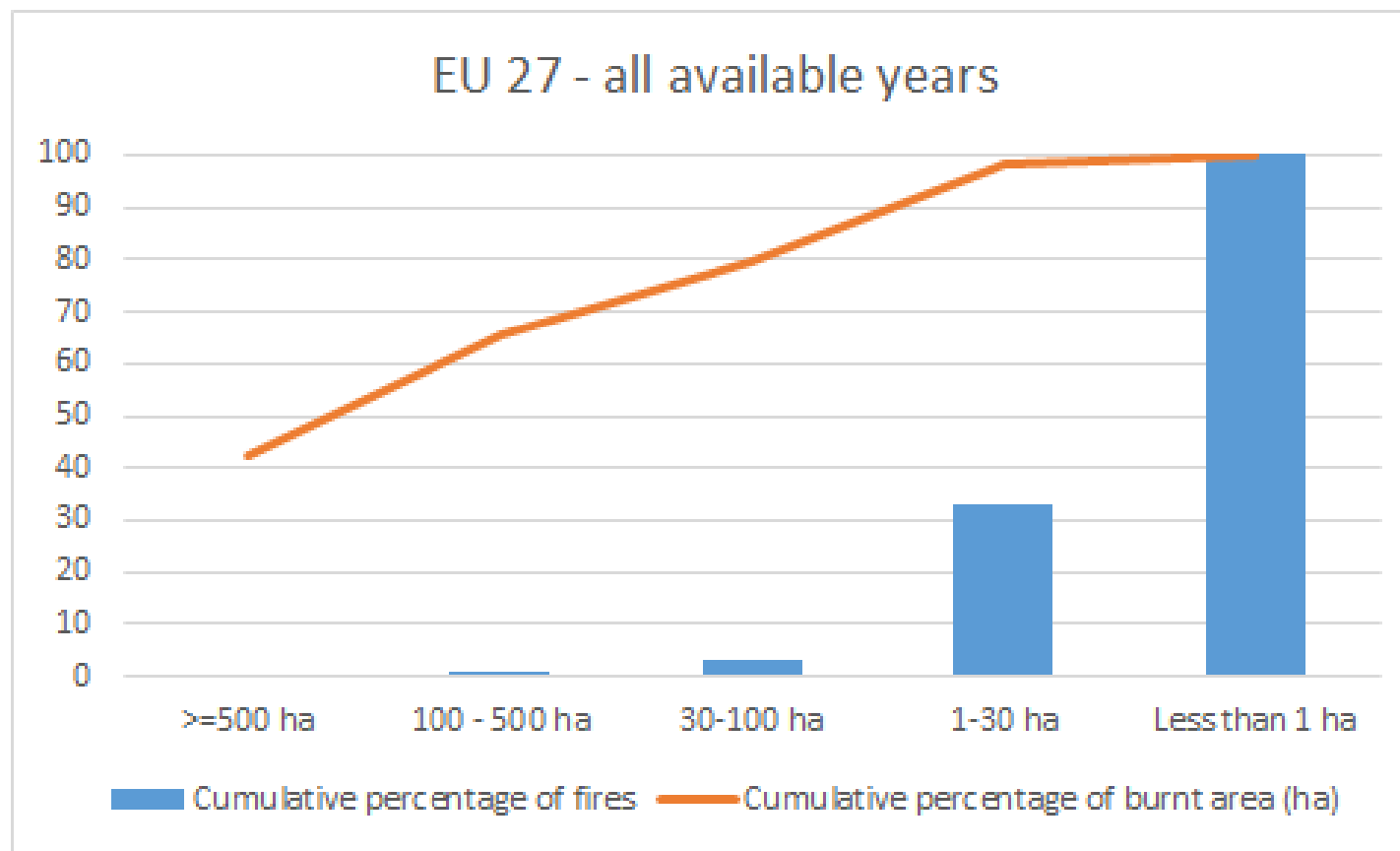


10 largest wildfires in the EU since 2000

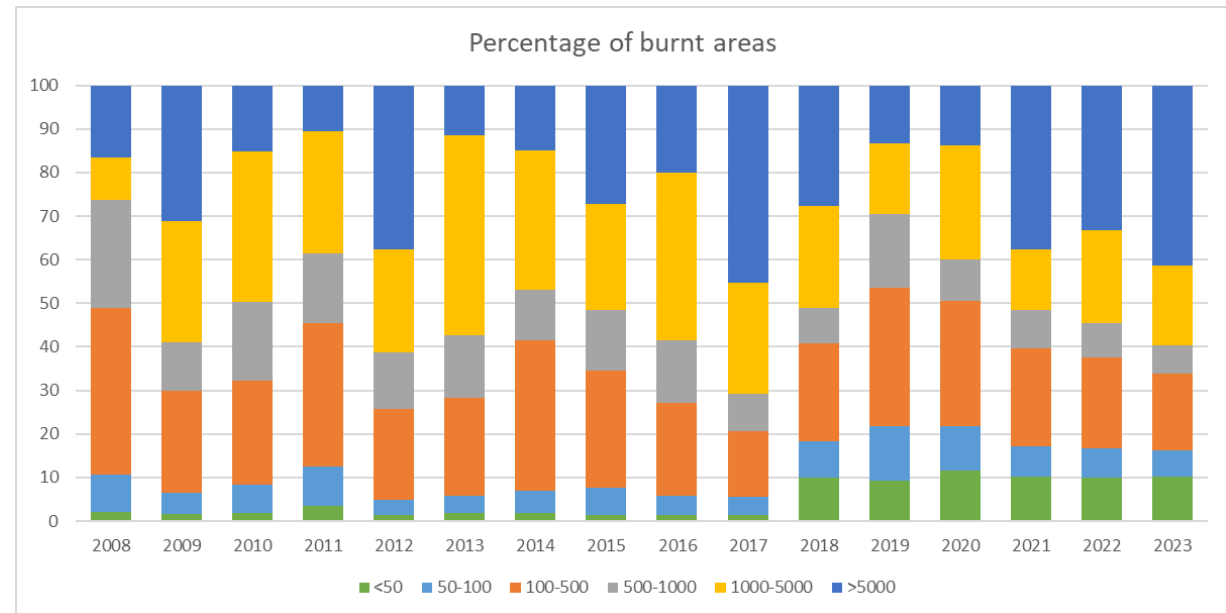
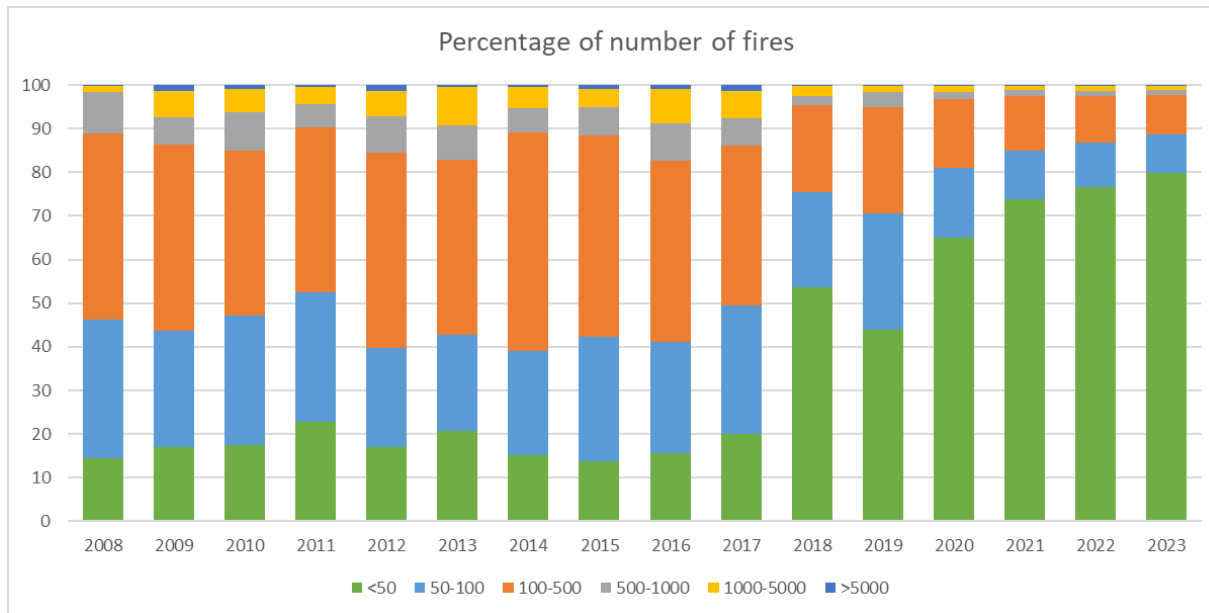
Year	Burnt area	Country	Region	Province
2023	96610	Greece	Eastern Macedonia, Thrace	Evros
2017	67521	Portugal	Centro (PT)	Viseu Dão Lafões
2017	64321	Portugal	Centro (PT)	Região de Coimbra
2003	59156	Portugal	Centro (PT)	Beira Baixa/Oleiros
2003	53568	Portugal	Centro (PT)	Médio Tejo/Macao
2003	52233	Portugal	Algarve	Algarve/Monchique
2021	51881	Greece	Central Greece	Evros
2007	45809	Greece	West Greece	Ilia
2007	42652	Greece	West Greece	Ilia
2007	42350	Greece	Peloponnese	Argolis, Arcadia



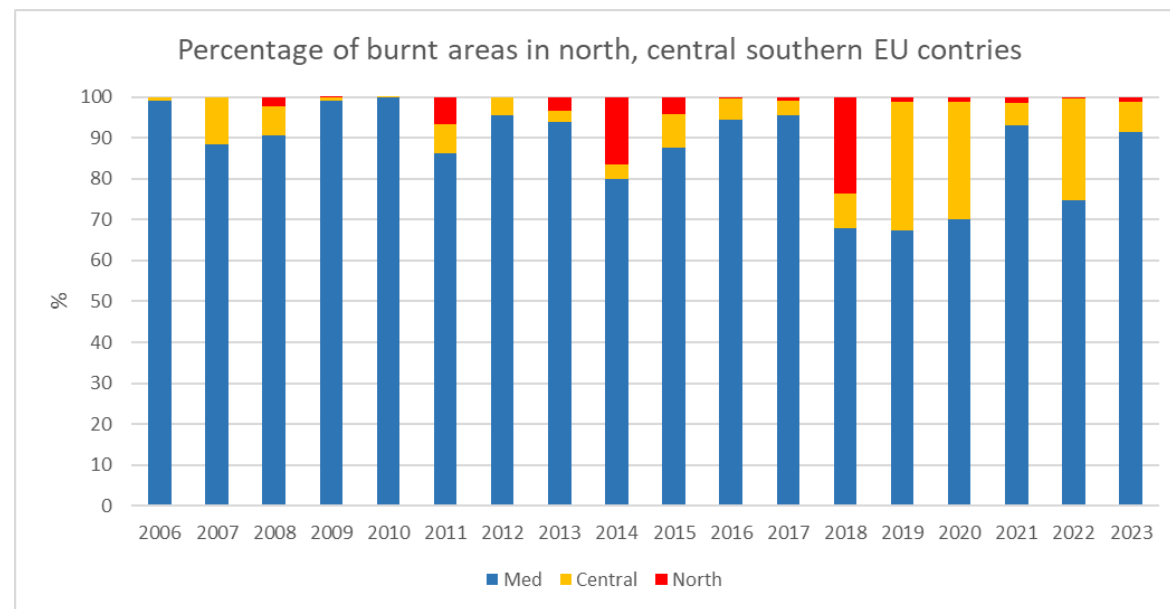
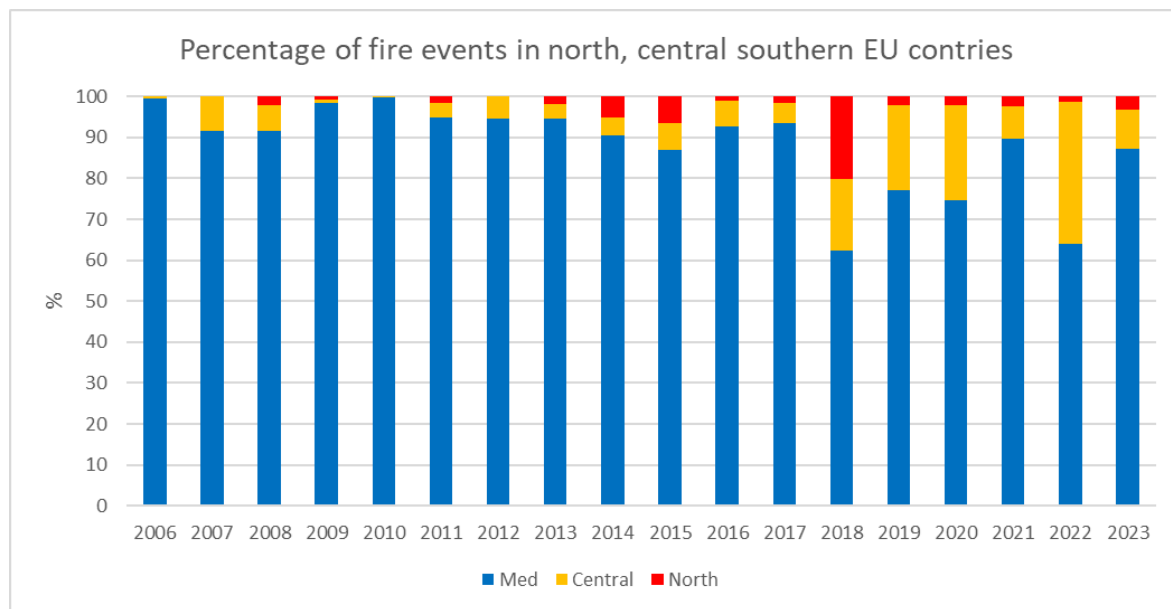
General trends in the period 2008-2022



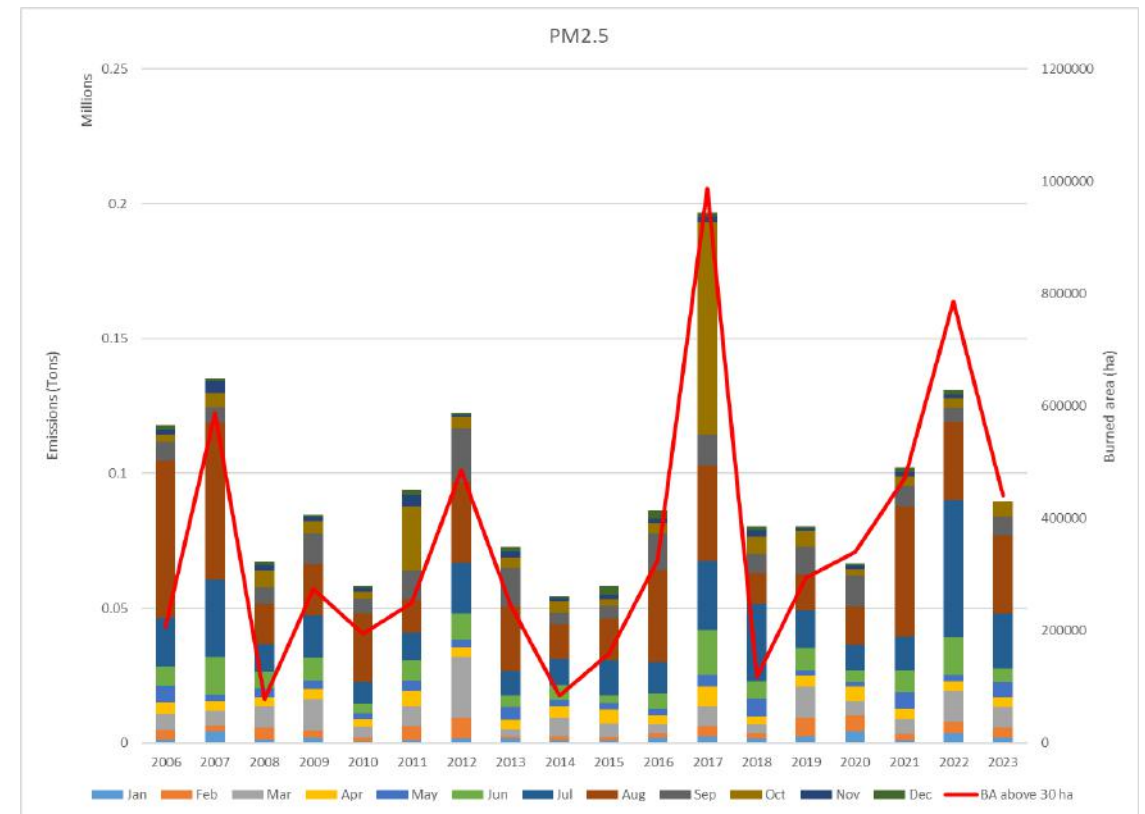
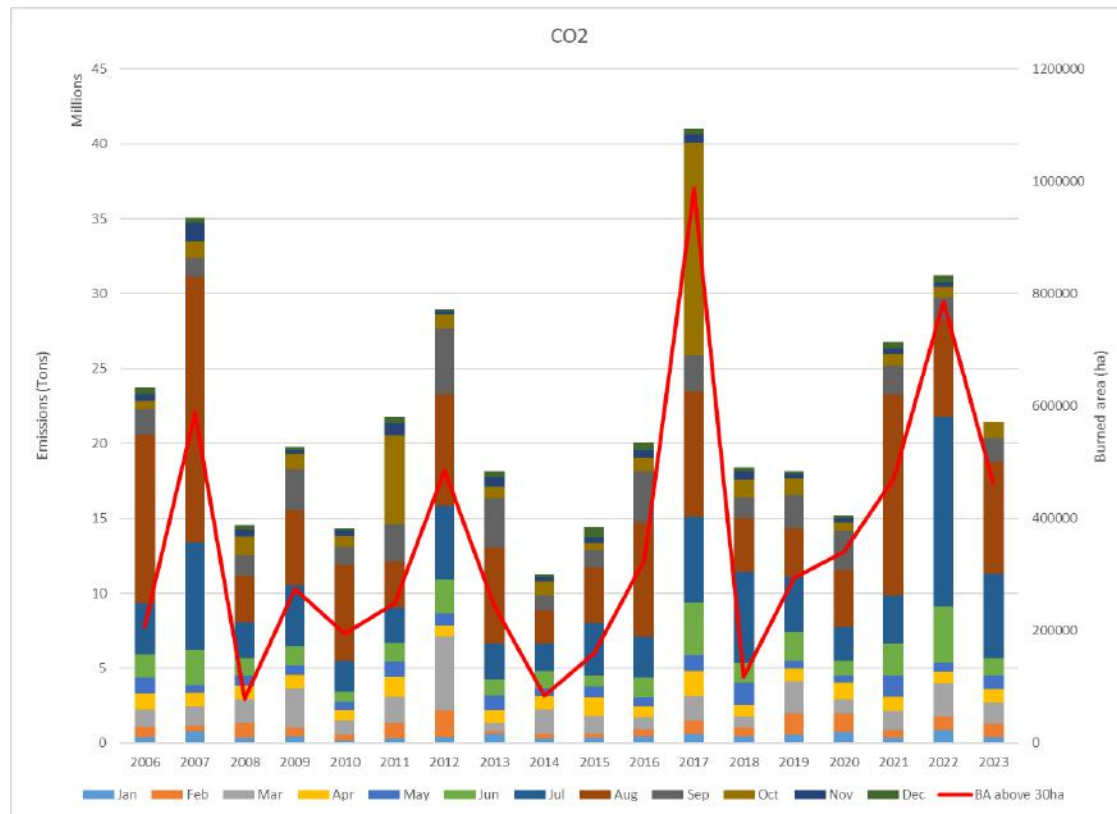
Wildfire by size in the period 2008-2023



Number of fires and burnt areas in northern, central and southern EU 2006-2023



Estimated emissions from forest fires in the period 2006-2023

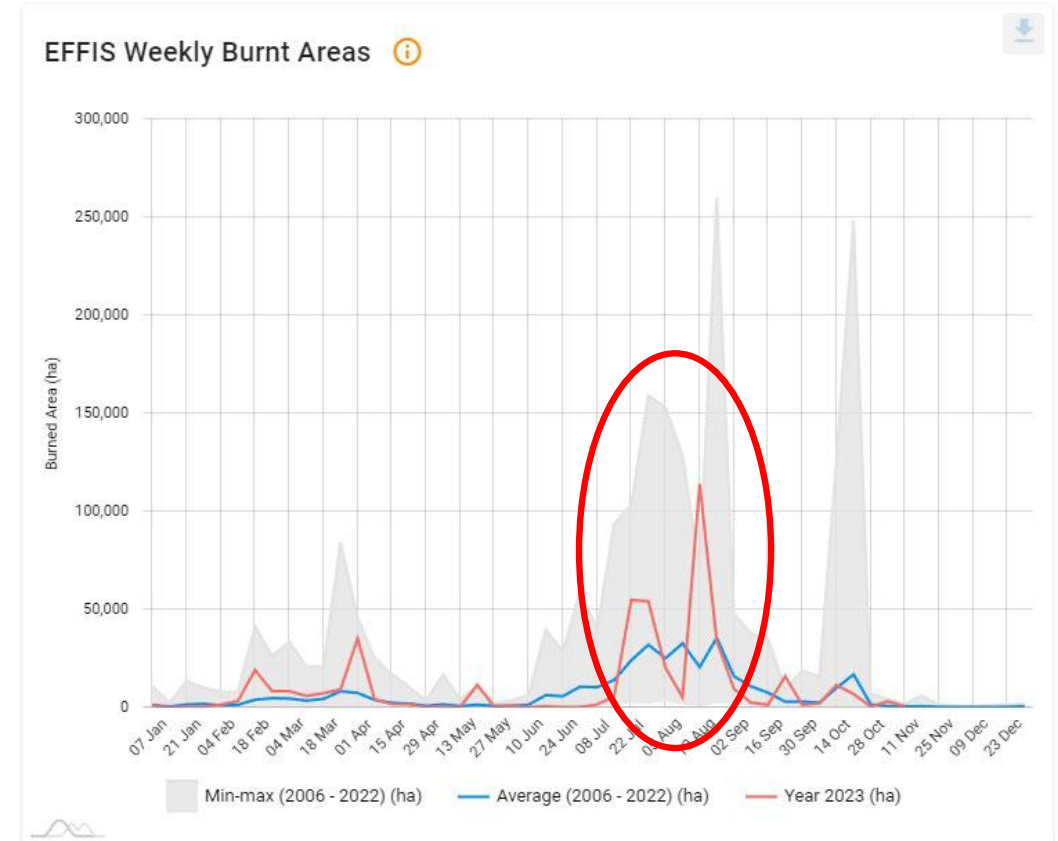
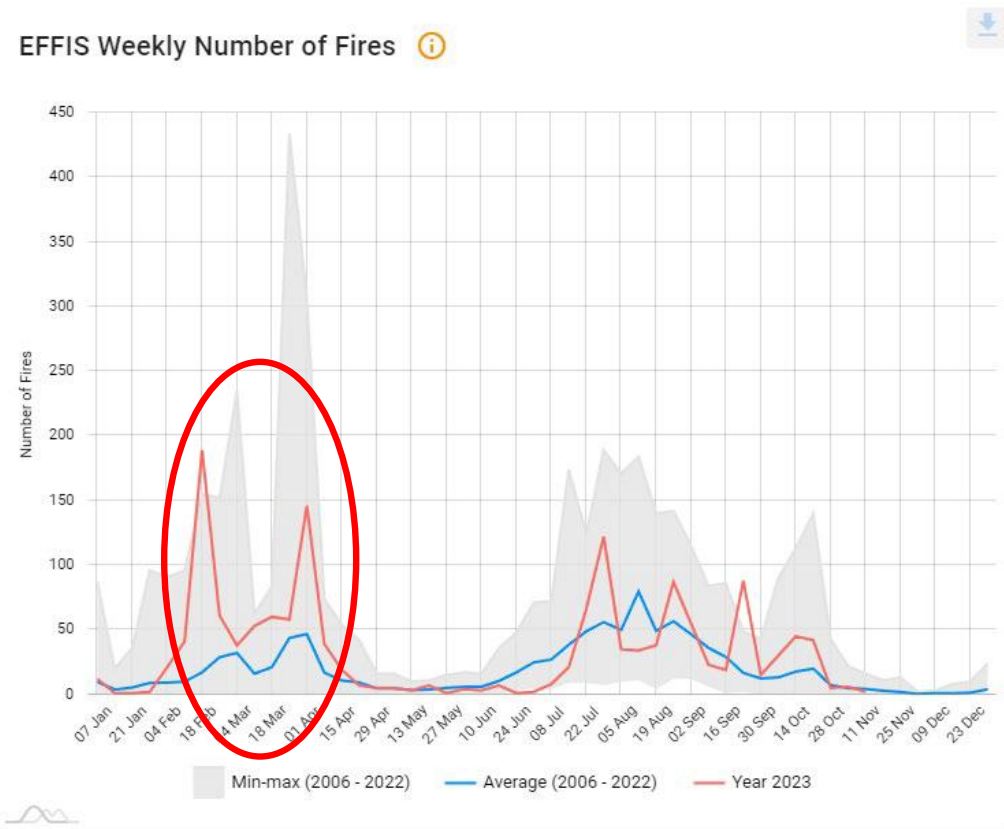


Based on data from GFAS/CAMS

Source: Joint Research Center (JRC) / European Forest Fire Information System (EFFIS)

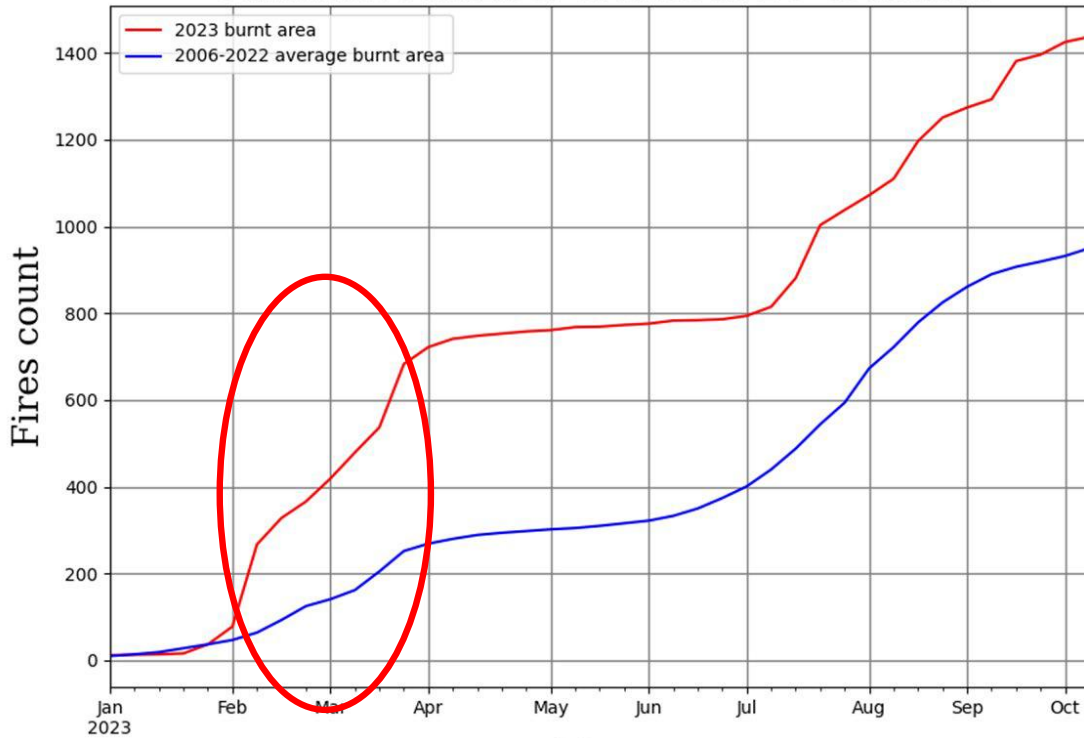
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Weekly trends in 2023

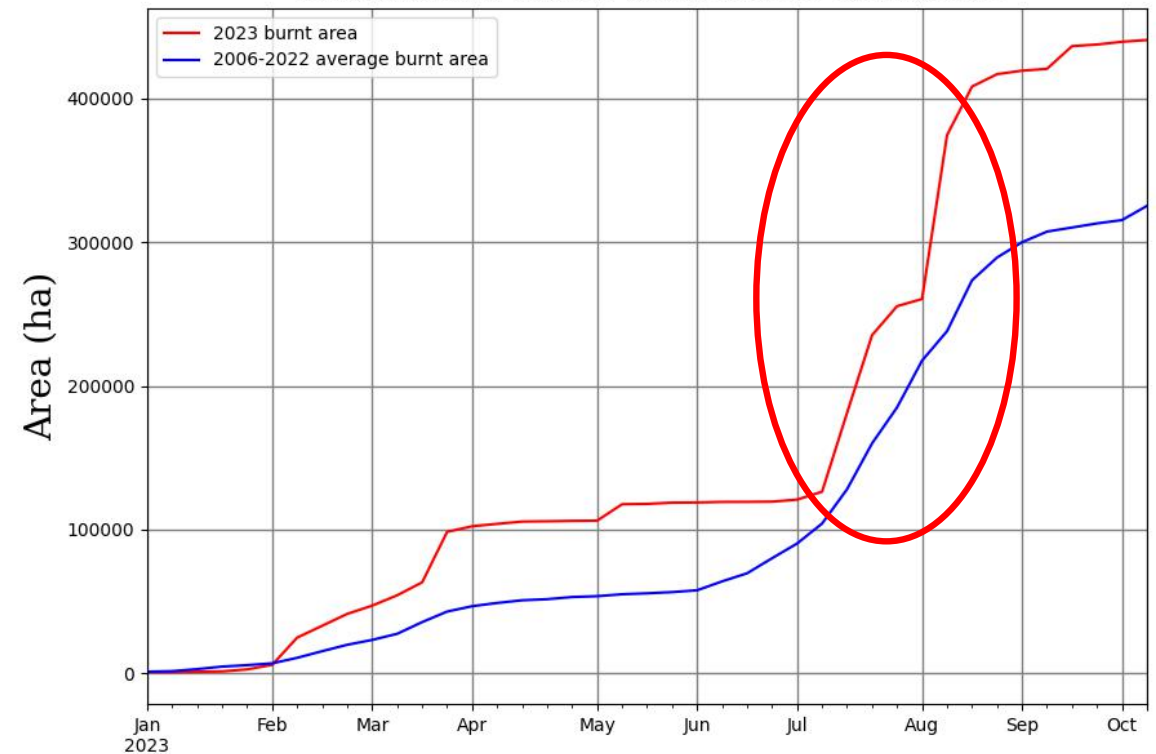


Number of fires and burnt areas in **2023**

Cumulative number of fires in EU countries



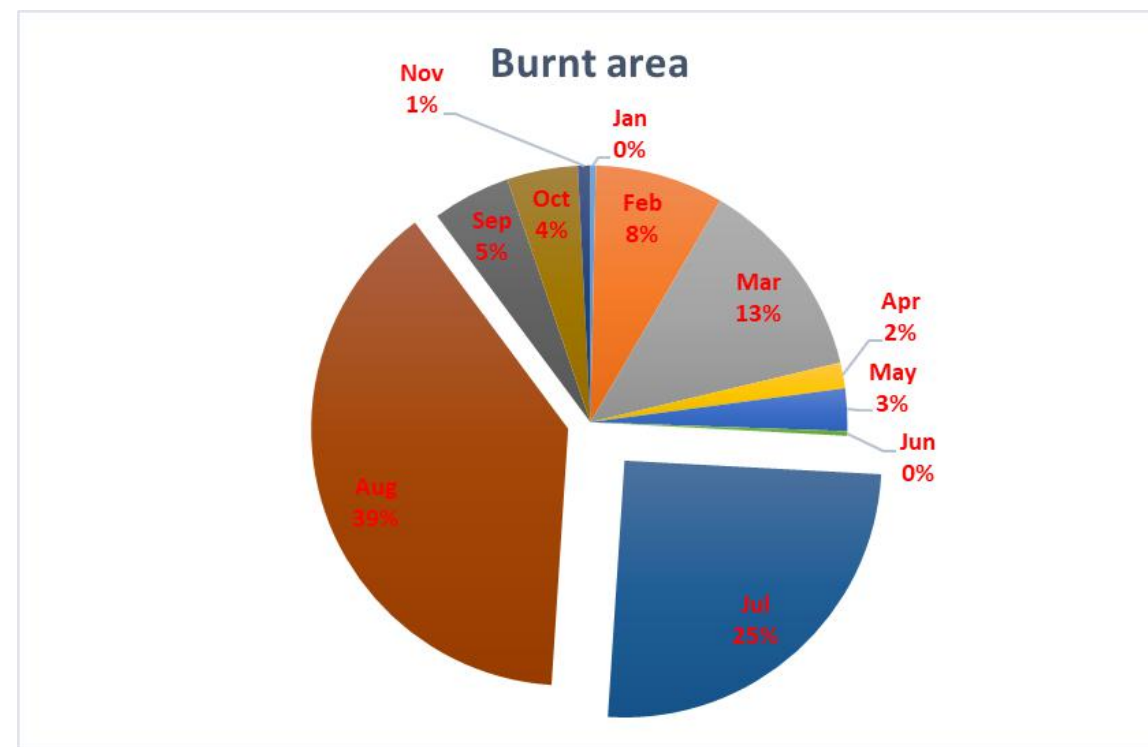
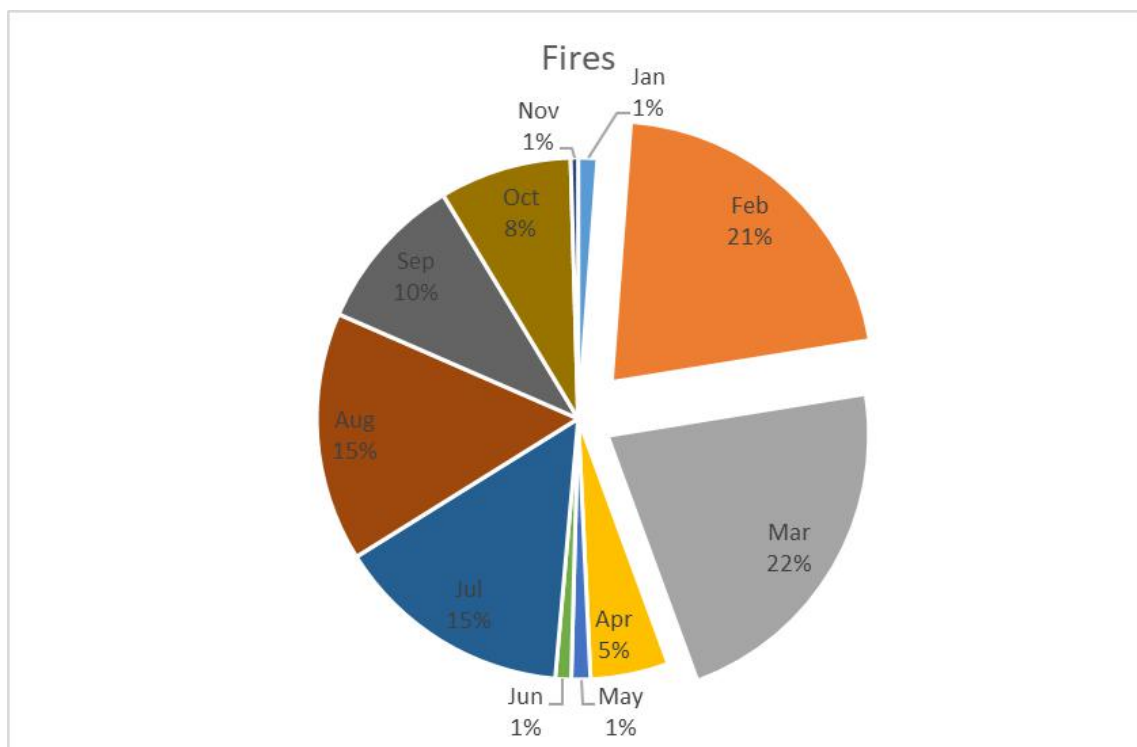
Cumulative burnt area in EU countries



497524 ha burnt by fires of all sizes November 16th, 2023

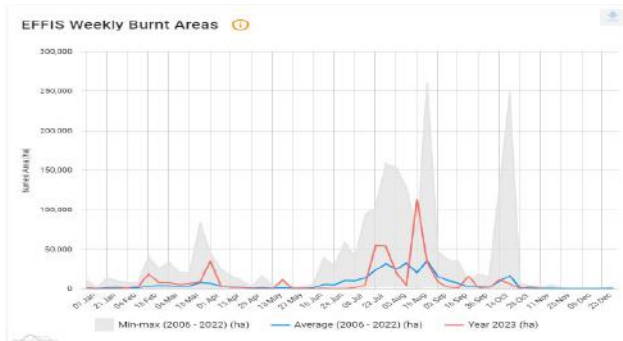
<https://effis.jrc.ec.europa.eu/apps/effis.statistics/seasonaltrend>

Monthly number of fires and burnt area in 2023 – **497524** ha (up to 16/11/23)



10 largest wildfires in the EU in 2023

Year	Burnt area (ha)	Country	Month
2023	96610	Greece	Jan
2023	18626	Greece	Feb
2023	11923	Spain	Mar
2023	11662	Greece	Apr
2023	10843	Spain	May
2023	9722	Spain	Jun
2023	8634	Greece	Jul
2023	8145	Portugal	Aug
2023	6679	Portugal	Sep
2023	6057	Greece	Oct
			Nov
			Dec



Alexandropoulis (Aug)



Canary island (Aug)



Valdes (Mar)



Rhodes (Jul)



Alexandropoulis (Jul)



Caceres (May)



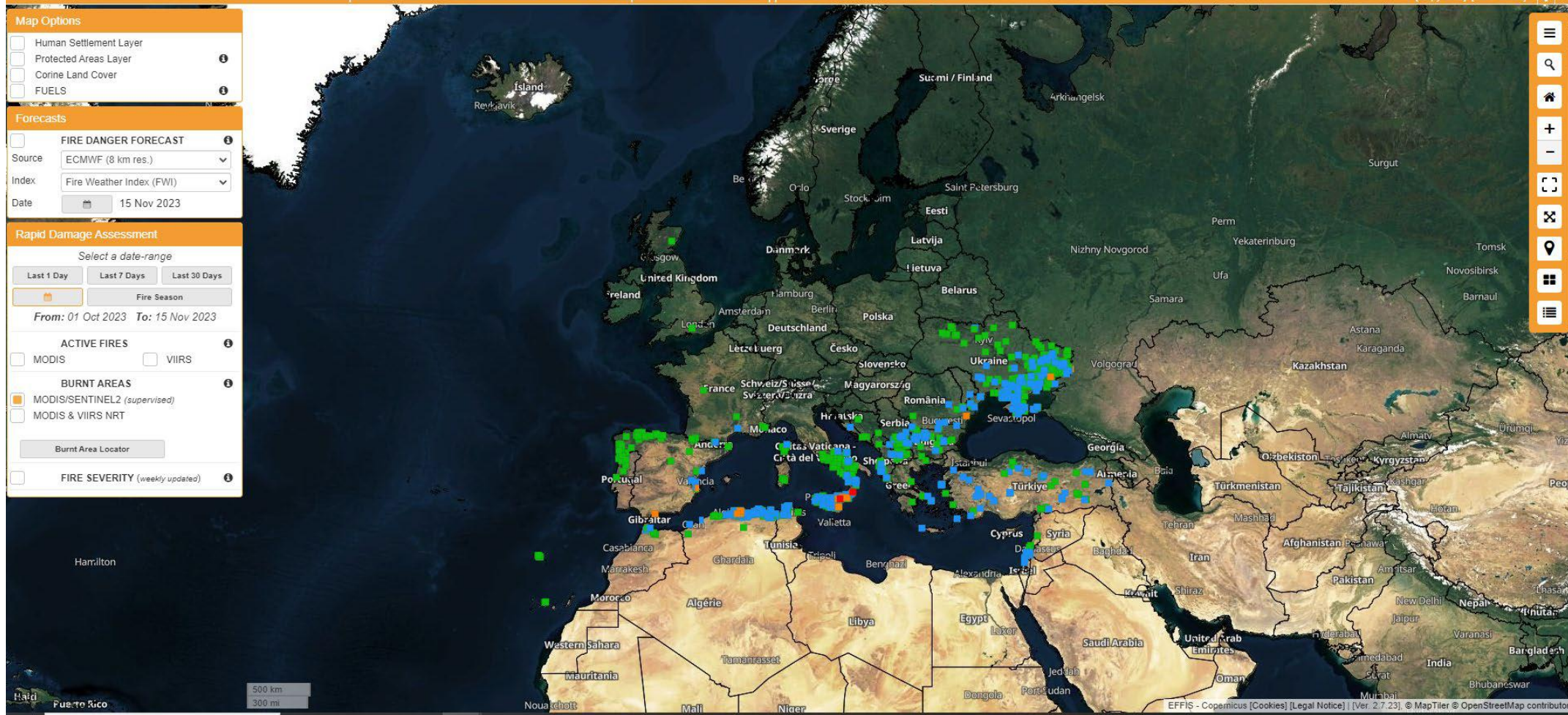


COPERNICUS
Emergency Management Service



European Commission > JRC EU Science Hub > DRM > Copernicus EMS > EFFIS > Applications > Current Situation Viewer

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Jan - Mar
Apr - Jun
Jul - Sept
Oct- 15
Nov

Source: Joint Research Center (JRC)/ European Forest Fire Information System (EFFIS)

47th MEETING EGFF, Brussels 23 Nov. 2023

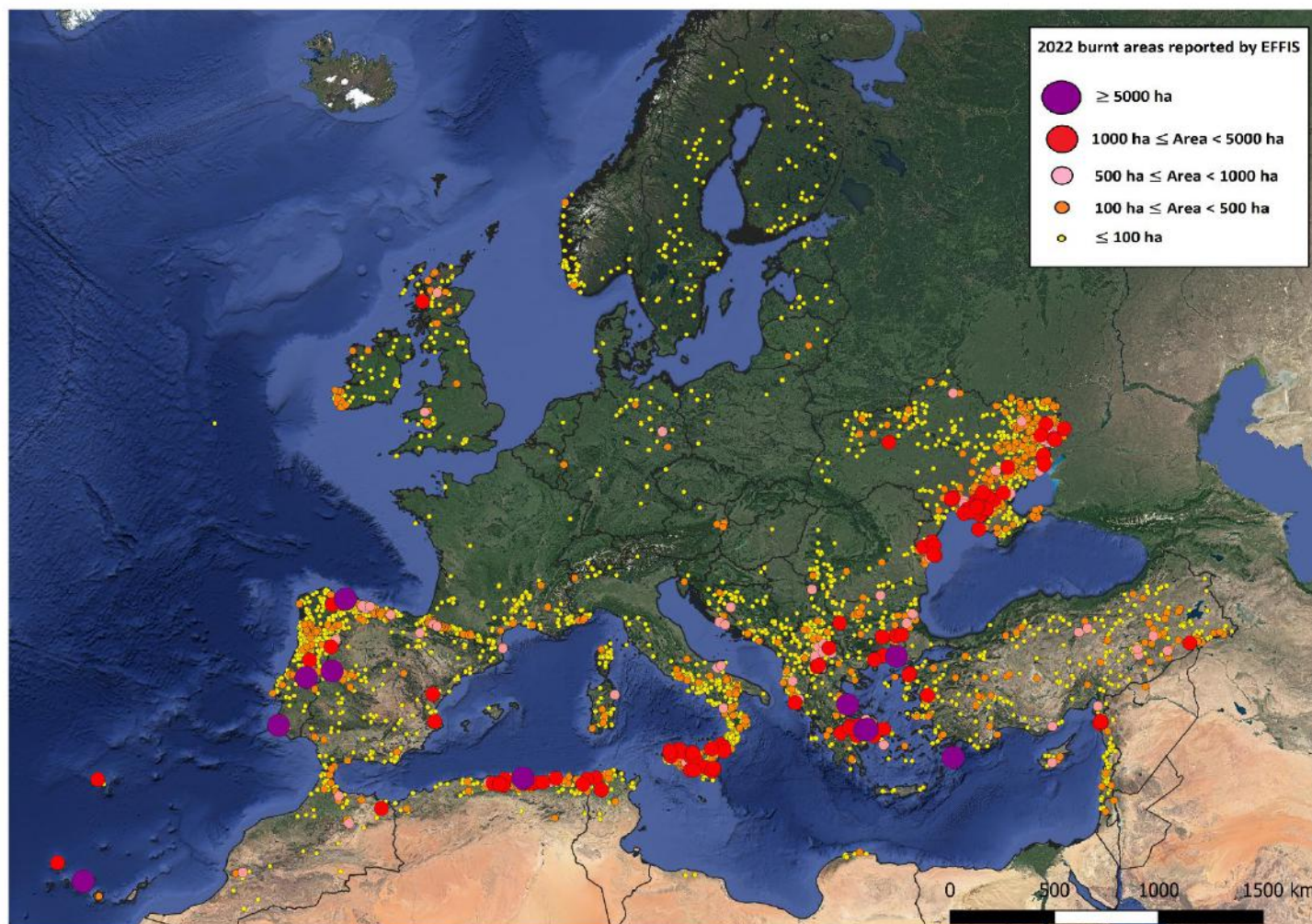
and Sectorally Related Issues, 8 December 2023

Joint
Research
Centre

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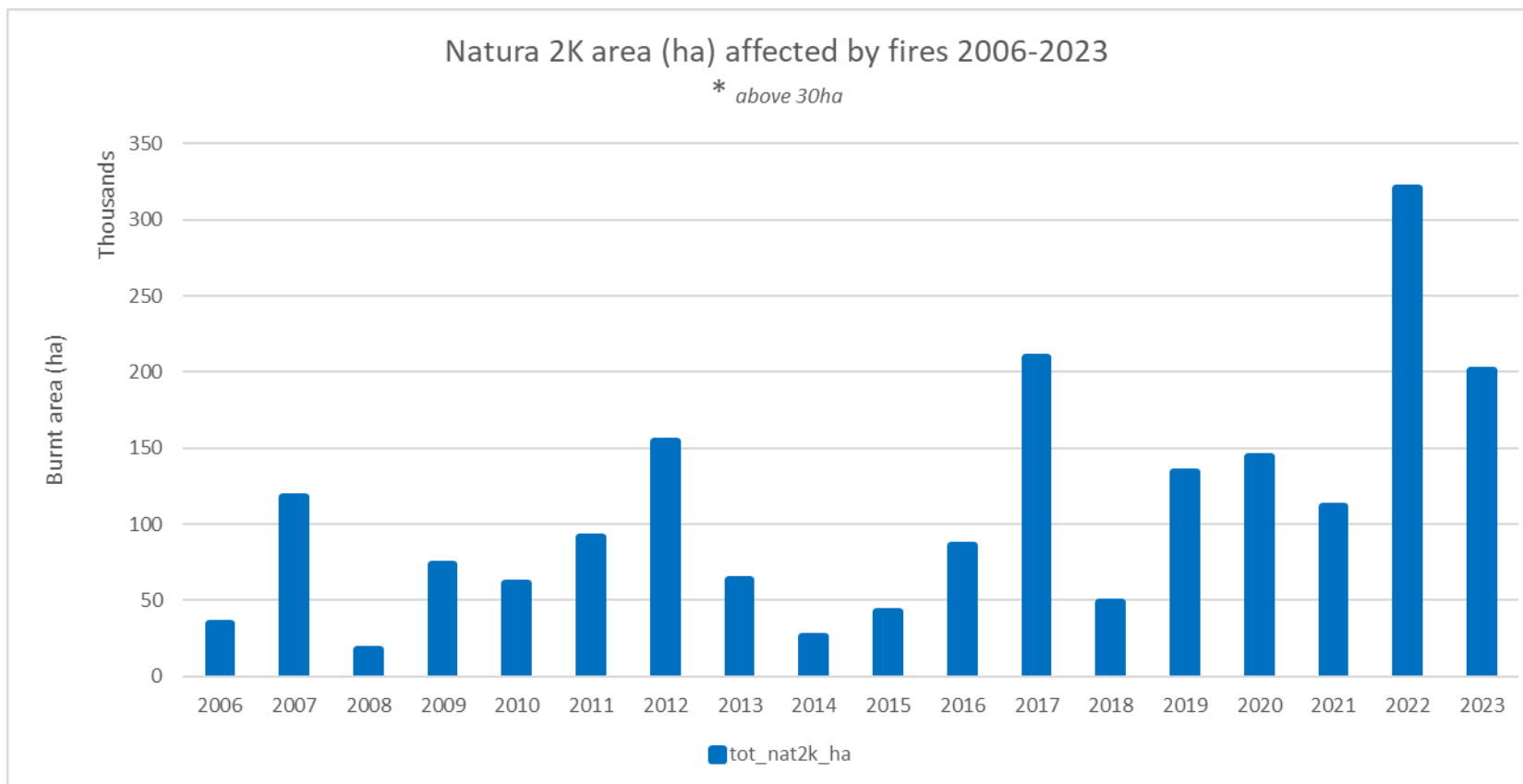
Burnt areas mapped by EFFIS in 2023



Source: Joint Research Center (JRC) / European Forest Fire Information System (EFFIS)

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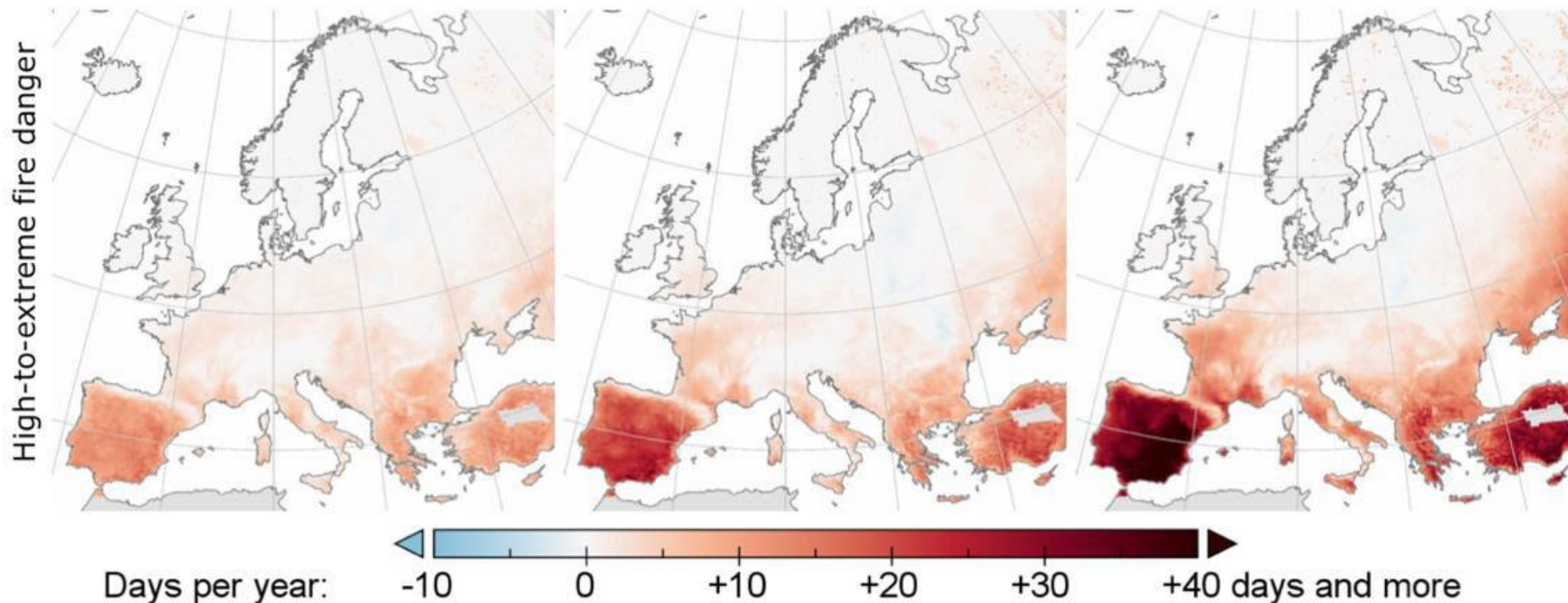
Natura 2000 damages from forest fires in the period 2006-2023



201,100 ha burnt in Natura2000 areas 2023, which is about 40% of the total burnt area this year

Fire Danger and Climate Change

1.5 degrees 2 degrees 3 degrees
 (additional days/year – compared with present – with high-to-extreme fire danger)

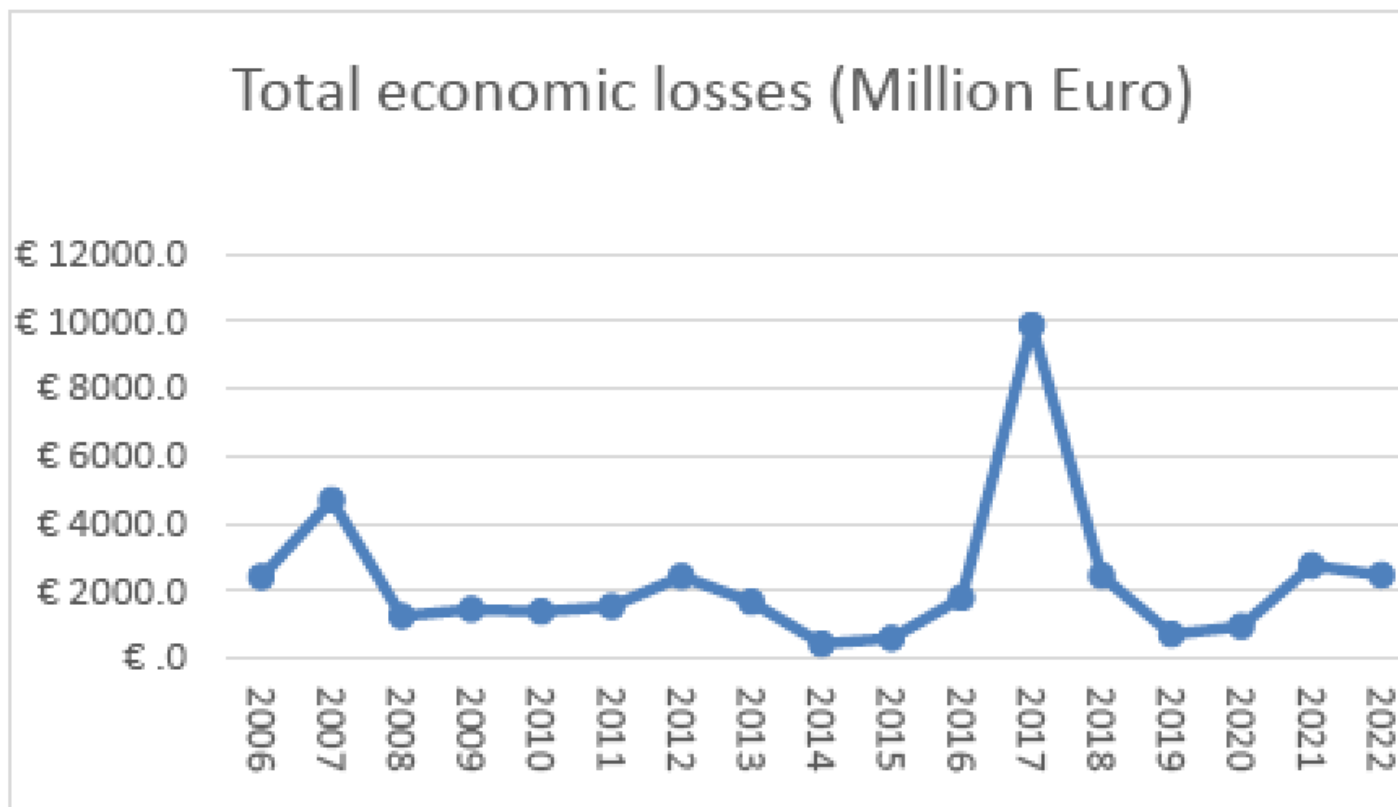


Peseta IV report - Costa, H., de Rigo, D., Libertà, G., Houston Durrant, T., San-Miguel-Ayanz, J., *European wildfire danger and vulnerability in a changing climate: towards integrating risk dimensions*, EUR 30116 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN: 978-92-76-16898-0, doi:10.2760/46951, JRC119980

Source: Joint Research Center (JRC) / European Forest Fire Information System (EFFIS)

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Estimated economic losses from wildfires in the period 2006-2022



- The economic losses due to wildfires in **2023** are above 2.5 billion Euro



SUMMARY

- Since 2006, there is a general increasing trend in the number of fires and burnt areas in the EU, with recent critical years such as 2017, 2021, 2022 and 2023.
- In the last years, the number of wildfires and burnt areas in central and northern Europe has increased. The amount of burnt areas has increased in countries not commonly affected by wildfires in the past.
- The level of wildfire emissions, which is highly correlated with that of burnt areas, became noticeable in critical years like those mentioned above.
- The length of the fire season has increased beyond the traditional months of July, August and September, with many wildfires and critical events outside that period.
- 2023 saw the largest fire episode in the EU, since 2000, with critical fires in several Mediterranean countries
- Over 201,100 ha have burnt in 2023 (about 40% of the burnt area) within Natura 2000 protected areas.
- Future climatic projections indicate higher fire danger levels in Europe; higher fire danger values will likely lead to more intense fires and larger burnt areas.
- The economic losses due to wildfires in 2023 are above 2.5 billion Euro.



Additional information at:

<https://effis.jrc.ec.europa.eu>

<https://gwis.jrc.ec.europa.eu>

[**jrc-effis@ec.europa.eu**](mailto:jrc-effis@ec.europa.eu)