# Europe's summer 2025 heatwave exposes deadly link to climate change and threatens tourism



A recent groundbreaking study conducted by researchers from Imperial College London and the London School of Hygiene & Tropical Medicine has revealed a stark reality about the summer of 2025 in Europe: human-induced climate change was directly linked to approximately 16,500 of the 24,400 heat-related deaths across the continent. This alarming figure represents nearly 68 percent of the total heat fatalities, underscoring the profound impact of rising global temperatures driven by greenhouse gas emissions.

The study, which analysed data from 854 major European cities — home to nearly a third of Europe’s population — found that average urban temperatures during the summer months soared between 2.2°C and 3.6°C above natural baselines due to climate change. This unprecedented heat surge made 2025 the fourth warmest summer on record for Europe, with certain countries suffering disproportionately high casualties. Italy witnessed 4,597 heat-related deaths, Spain 2,841, Germany 1,477, France 1,444, and the UK 1,147. Particularly hard-hit were capital cities such as Rome, Athens, and Bucharest, which experienced the highest per-capita heat death rates.

Older adults formed the majority of the victims, with 85 percent of heat-related deaths occurring among those aged 65 and above. Researchers caution that such fatalities are often underestimated in official records because heat is seldom cited as the direct cause of death, typically overshadowed by cardiovascular or respiratory complications triggered by extreme temperatures. This phenomenon has led to the characterization of heat as a "silent killer," its deadly toll masked within broader health crises.

Public health systems and urban infrastructure across Europe are being severely tested by the escalating frequency and intensity of heatwaves. Despite improvements since the catastrophic 2003 heatwave, emergency services are struggling to cope with the demanding pressures of hotter summers and ageing populations. Experts advocate for comprehensive adaptation strategies encompassing local heatwave action plans, expanding urban green spaces and shading, prioritizing air conditioning for retirement homes, and strengthening early warning systems alongside targeted public awareness campaigns to mitigate future risks.

The effects of rising temperatures extend beyond public health, posing significant challenges to Europe’s vital tourism industry. Hotter summers are deterring outdoor cultural events, hiking, city exploration, and other activities traditionally enjoyed by tourists. Many heritage hotels and tourist attractions lack modern cooling infrastructure, raising concerns for the safety of both visitors and staff. Southern Europe, particularly Spain, France, and Italy, faces declining summer bookings as heatwaves become commonplace. Coastal regions are also grappling with climate-driven threats such as beach erosion and diminished water quality, which jeopardise the long-term sustainability of these destinations.

Imperative calls from researchers and officials emphasise the dual need to curtail greenhouse gas emissions and implement comprehensive adaptation measures. Mitigation efforts focusing on phasing out fossil fuels remain the most effective means to prevent increasingly deadly summers. Simultaneously, policymakers must invest in greener urban environments, reinforce health protections, and recalibrate tourism planning to account for heat-related risks. Coordination between public health authorities and tourism boards is crucial—ranging from emergency heatwave protocols to infrastructural improvements like cooling and shaded areas.

The deadly summer of 2025 marks a pivotal moment demanding urgent action. Europe’s cities and tourist resorts must contend with a hotter, more unpredictable climate by balancing immediate public health interventions with far-reaching environmental reform. Heightened awareness, preparedness, and cross-sector collaboration stand as essential pillars to protect both residents and travellers, as well as the economic vitality of Europe's cherished tourism sectors.

### 📌 Reference Map:

* Paragraph 1 – [[1]](https://www.travelandtourworld.com/news/article/climate-change-linked-to-summer-heat-deaths-in-europe-raises-urgent-alarms-for-public-health-and-tourism-what-you-need-to-know/), [[2]](https://www.euronews.com/green/2025/09/17/silent-killer-climate-change-led-to-16500-more-heat-deaths-in-europe-this-summer-study-say), [[3]](https://www.aljazeera.com/news/2025/9/17/did-climate-change-cause-16500-extra-deaths-in-europe-this-summer), [[4]](https://www.aa.com.tr/en/europe/climate-change-caused-over-two-thirds-of-deaths-this-summer-across-europe-study/3690282), [[6]](https://www.hurriyetdailynews.com/study-estimates-16-500-climate-deaths-during-europe-summer-213698)
* Paragraph 2 – [[1]](https://www.travelandtourworld.com/news/article/climate-change-linked-to-summer-heat-deaths-in-europe-raises-urgent-alarms-for-public-health-and-tourism-what-you-need-to-know/), [[2]](https://www.euronews.com/green/2025/09/17/silent-killer-climate-change-led-to-16500-more-heat-deaths-in-europe-this-summer-study-say), [[3]](https://www.aljazeera.com/news/2025/9/17/did-climate-change-cause-16500-extra-deaths-in-europe-this-summer), [[4]](https://www.aa.com.tr/en/europe/climate-change-caused-over-two-thirds-of-deaths-this-summer-across-europe-study/3690282), [[6]](https://www.hurriyetdailynews.com/study-estimates-16-500-climate-deaths-during-europe-summer-213698)
* Paragraph 3 – [[1]](https://www.travelandtourworld.com/news/article/climate-change-linked-to-summer-heat-deaths-in-europe-raises-urgent-alarms-for-public-health-and-tourism-what-you-need-to-know/), [[2]](https://www.euronews.com/green/2025/09/17/silent-killer-climate-change-led-to-16500-more-heat-deaths-in-europe-this-summer-study-say), [[6]](https://www.hurriyetdailynews.com/study-estimates-16-500-climate-deaths-during-europe-summer-213698)
* Paragraph 4 – [[1]](https://www.travelandtourworld.com/news/article/climate-change-linked-to-summer-heat-deaths-in-europe-raises-urgent-alarms-for-public-health-and-tourism-what-you-need-to-know/), [[2]](https://www.euronews.com/green/2025/09/17/silent-killer-climate-change-led-to-16500-more-heat-deaths-in-europe-this-summer-study-say), [[4]](https://www.aa.com.tr/en/europe/climate-change-caused-over-two-thirds-of-deaths-this-summer-across-europe-study/3690282), [[6]](https://www.hurriyetdailynews.com/study-estimates-16-500-climate-deaths-during-europe-summer-213698)
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* Paragraph 6 – [[1]](https://www.travelandtourworld.com/news/article/climate-change-linked-to-summer-heat-deaths-in-europe-raises-urgent-alarms-for-public-health-and-tourism-what-you-need-to-know/), [[5]](https://www.aa.com.tr/en/europe/heat-wave-across-europe-resulted-in-2-300-deaths-report/3626109), [[7]](https://www.imperial.ac.uk/grantham/publications/background-briefings/uk-and-european-heatwave-2025-/)
* Paragraph 7 – [[1]](https://www.travelandtourworld.com/news/article/climate-change-linked-to-summer-heat-deaths-in-europe-raises-urgent-alarms-for-public-health-and-tourism-what-you-need-to-know/)

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## Bibliography

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2. <https://www.euronews.com/green/2025/09/17/silent-killer-climate-change-led-to-16500-more-heat-deaths-in-europe-this-summer-study-say> - A study by Imperial College London and the London School of Hygiene & Tropical Medicine found that climate change was responsible for 68% of the 24,400 estimated heat-related deaths in Europe during the summer of 2025. The analysis, covering 854 cities, revealed that an average temperature increase of up to 3.6°C led to an additional 16,500 deaths. The study highlighted that older adults were particularly vulnerable, with 85% of the deaths occurring among those aged 65 and above. The researchers emphasised the need for robust adaptation strategies at both city and national levels to address the escalating health risks posed by extreme heat events. ([euronews.com](https://www.euronews.com/green/2025/09/17/silent-killer-climate-change-led-to-16500-more-heat-deaths-in-europe-this-summer-study-say?utm_source=openai))
3. <https://www.aljazeera.com/news/2025/9/17/did-climate-change-cause-16500-extra-deaths-in-europe-this-summer> - Research from the Grantham Institute – Climate Change and the Environment in London estimated that climate change was responsible for 68% of the 24,400 additional heat-related deaths in Europe during the summer of 2025. The study, which examined 854 European cities, found that an average temperature increase of approximately 3.6°C led to an additional 16,500 deaths. The analysis also noted that capital cities such as Rome, Athens, and Bucharest experienced the highest per-capita heat death rates. The findings underscore the urgent need for effective adaptation strategies to mitigate the health impacts of extreme heat events. ([aljazeera.com](https://www.aljazeera.com/news/2025/9/17/did-climate-change-cause-16500-extra-deaths-in-europe-this-summer?utm_source=openai))
4. <https://www.aa.com.tr/en/europe/climate-change-caused-over-two-thirds-of-deaths-this-summer-across-europe-study/3690282> - A study by Imperial College London and the London School of Hygiene & Tropical Medicine revealed that climate change was responsible for over two-thirds of the 24,400 estimated heat-related deaths in Europe during the summer of 2025. The research, which analysed data from 854 European cities, found that an average temperature increase of up to 3.6°C led to an additional 16,500 deaths. The study highlighted that older adults were particularly vulnerable, with 85% of the deaths occurring among those aged 65 and above. The researchers called for urgent adaptation measures to address the escalating health risks posed by extreme heat events. ([aa.com.tr](https://www.aa.com.tr/en/europe/climate-change-caused-over-two-thirds-of-deaths-this-summer-across-europe-study/3690282?utm_source=openai))
5. <https://www.aa.com.tr/en/europe/heat-wave-across-europe-resulted-in-2-300-deaths-report/3626109> - A study released in July 2025 estimated that approximately 2,300 people died due to heat-related causes during a severe heatwave across Europe. The research, conducted by scientists at Imperial College London and the London School of Hygiene & Tropical Medicine, found that climate change was responsible for about 1,500 of these deaths, making the heatwave more severe. The study covered 12 European cities, including London, Paris, and Milan, and highlighted the significant impact of climate change on the intensity of heatwaves and associated mortality rates. ([aa.com.tr](https://www.aa.com.tr/en/europe/heat-wave-across-europe-resulted-in-2-300-deaths-report/3626109?utm_source=openai))
6. <https://www.hurriyetdailynews.com/study-estimates-16-500-climate-deaths-during-europe-summer-213698> - Scientists estimated that rising temperatures from human-caused climate change were responsible for approximately 16,500 deaths in European cities during the summer of 2025. The study, conducted by Imperial College London and the London School of Hygiene & Tropical Medicine, used modelling to project the toll before official data was released. The researchers noted that death tolls during heatwaves are often vastly underestimated, as causes of death recorded in hospitals are typically heart or breathing problems that particularly affect the elderly when temperatures soar. ([hurriyetdailynews.com](https://www.hurriyetdailynews.com/study-estimates-16-500-climate-deaths-during-europe-summer-213698?utm_source=openai))
7. <https://www.imperial.ac.uk/grantham/publications/background-briefings/uk-and-european-heatwave-2025-/> - A study by Imperial College London and the London School of Hygiene & Tropical Medicine estimated that in London, the hot weather experienced between 23rd June and 2nd July 2025 resulted in around 260 excess heat-related deaths, with approximately 170 (or 65%) attributed to climate change. The study also examined the impact of the heatwave across eleven other European cities and found similar results. In Madrid, over 90% of the expected excess deaths were estimated to be linked to climate change. The findings underscore the significant role of climate change in intensifying heatwaves and associated mortality rates. ([imperial.ac.uk](https://www.imperial.ac.uk/grantham/publications/background-briefings/uk-and-european-heatwave-2025-/?utm_source=openai))