

WHERE THERE'S SMOKE:
**SIX WILDFIRE
STORIES**



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The Environmental Justice Foundation (EJF)
exists to protect the natural world and defend our
basic human right to a secure environment.

Our work to secure environmental justice aims to protect our global climate, ocean, forests, wetlands and wildlife, and defend the fundamental human right to a secure natural environment, recognising that all other rights are contingent on this.

EJF works internationally to inform policy and drive systemic, durable reforms to protect our environment and defend human rights. We investigate and expose abuses and support environmental defenders, Indigenous peoples, communities, and independent journalists on the frontlines of environmental injustice.

Our campaigns aim to secure peaceful, equitable and sustainable futures. Our investigators, researchers, filmmakers, and campaigners work with grassroots partners and environmental defenders across the globe.

Special thanks to all interviewees who contributed information and insights to this briefing. All views expressed are those of EJF alone, and by naming individual interviewees, we do not imply their full endorsement of this briefing.

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INTRODUCTION

Wildfires are on the rise, quickly shaping as a global emergency and defining feature of the climate crisis: more frequent, intense and destructive.

They are burning more land, displacing communities, driving biodiversity loss, releasing vast quantities of carbon and imposing mounting economic costs. A recent analysis revealed that 43% of the most economically damaging wildfire events recorded happened in just the last decade.¹ This is a period marked by the accelerating climate crisis, which is creating conditions conducive to fire prevalence and severity through rising temperatures, erratic weather patterns and droughts.

Wildfires during the 2024 to 2025 global fire season, from March 2024 to February 2025, burned more than 3.7 million square kilometres of land, a total area larger than India.² Despite burning less land than the annual average over the past two decades, emissions from this season were 9% higher than the average.³ The intensity is also growing globally, with a 2-fold increase in the frequency and magnitude of extreme fire events.⁴ The increase in emissions is largely because of fires in critical carbon sinks such as forests and wetlands, which are vital for biodiversity protection, livelihoods and economic development.⁵ In 2023 and 2024, global forest disturbance caused by fire was over twice the annual average recorded between 2002 and 2022.^{6,7}

In the Pantanal, the world's largest tropical wetland and a hotspot for wildfires, anthropogenic global heating has made fire-prone weather up to five times more likely, resulting in burned areas 35 times greater than would have been expected otherwise.⁸ This pattern is evident in other wildfire-prone regions: southern California, for instance, has experienced a 25-fold increase in burned area because of the climate crisis.⁹

Wildfires are not just destroying irreplaceable ecosystems and fueling the climate crisis; they are also a direct threat to human health, livelihoods and wellbeing. In just two decades, the number of people globally exposed to fires has surged by 40%.¹⁰

Each year, wildfires claim the lives of several hundred people and force many thousands to evacuate.^{11,12} They destroy homes and vital infrastructure, including schools and businesses.

During the 2024 to 2025 fire season, over 100 million people were exposed to wildfires, with at least 200 fatalities directly attributed to these events.¹³ Over US\$215 billion in physical assets, including homes and other infrastructure, were also exposed to fire risks during this time.¹⁴

THE MESSAGE IS CLEAR: WILDFIRES GLOBALLY ARE THREATENING PEOPLE AND THE PLANET.

Burnt forest, Murça, Portugal, 2022.

Regions with a history of wildfires are facing more intense and severe fire events, while new areas are also having to contend with this threat. Without urgent global action to address the drivers of this crisis — global heating and unsustainable land use — wildfires will only worsen, undermining efforts to build climate resilience and protect communities and livelihoods.

In this briefing, the Environmental Justice Foundation (EJF) provides a glimpse into the real human and ecological costs of wildfires across six regions: from the UK's carbon-rich temperate peatlands, to the tropical landscapes of the Pantanal and Indonesia, to personal experiences in Los Angeles and Greece, before concluding in the Congo Basin, where one of the world's most crucial carbon sinks is increasingly vulnerable to wildfires.

Through first-hand accounts, testimonies from environmental defenders and expert insights, we explore how fires are reshaping the map of risk, deepening inequalities and threatening lives, while reflecting on what must change to stop this crisis from escalating further.



UK

Moorland burns in rural Wales.

The UK is experiencing a significant rise in wildfire events.

By the end of July 2025, England and Wales had recorded a **663%** increase in wildfires compared to the same period the previous year, and a **33%** increase over the same period in 2022, which was previously a record year.¹⁵ From January to mid-August 2025, **856** wildfires had been recorded.¹⁶ Global heating is fuelling this crisis, disrupting weather patterns and increasing the frequency of hot, dry conditions. In peatland ecosystems, where dryness driven by the climate crisis increases ignition susceptibility, this is particularly concerning.

Peatlands have a globally important role in carbon storage. Despite covering just 3–4% of the Earth’s land surface, they contain as much carbon as all of the world’s forests and store up to one-third of the world’s soil carbon.¹⁷ In the UK, peatlands store an estimated 3.2 billion tonnes of carbon.¹⁸ When fires hit peatlands, they not only damage the ecosystem but also release vast amounts of stored carbon into the atmosphere. This turns these valuable natural assets from carbon sinks into sources of GHG emissions, exacerbating the climate crisis and creating a self-reinforcing feedback loop. Between 2001 and 2021, peatland fires accounted for 25% of the total average burned area in the UK, yet were responsible for up to 90% of all fire-related carbon emissions.¹⁹

“

First and foremost, it’s the blocked weather patterns in the UK, which climate change scenarios predicted ten or twenty years ago. You have a high-pressure system locked, the jet stream swirling around it and staying there. It brings those dry, Easterly winds to the UK, which dry out the biomass, creating extortionate amounts of fuel loads. The climate change scenarios, which seem to be absolutely coming true right now, show we are on the upward trend. The fuel loads and wildfire risks are both increasing.²⁰

It’s a vicious cycle: the loss of carbon stored contributes to emissions, intensifying climate risks and increasing the likelihood of further fires. Annual emissions from peat fires are highly variable but are estimated at, on average, 0.5-1.0 billion tonnes of carbon dioxide equivalent per year, equating to around 1-2% of global greenhouse gas emissions.^{21,22} Research shows that a 2°C rise in global temperatures could lead to a 60% increase in emissions from peatland fires.

“

During a conversation with EIF, Dr. Heinemeyer, ecosystem ecologist, drew attention to the growing threats posed by wildfires in peatlands, the ecological costs, and called for policy responses rooted in science and involving the voices of local communities:

Fuel loads are increasing rapidly on UK peatlands because when it’s warmer and sunnier, you get more biomass, especially on peatlands. More fuel loads means a greater wildfire risk. This is not reported [on] enough.

It is not a matter of “if” but “when” a wildfire will most likely burn into the peat. That means you have lost hundreds, sometimes thousands of years of carbon.

When you lose the top layer of peat, you also lose all of the vegetation with it, all of the biodiversity, and what you get afterwards is likely not what you had before. Opportunistic species will move in, rather than the species that should be there, because the seed bank has been burned away. You get completely different vegetation, most likely invasive species.

[Wildfires are] changing the peatland and its functions. All of them. And once you’ve lost the peat, you change the water-holding capacity, the drinking water quality, and all the ecosystem services and functions that are linked to an intact peat layer.

We shouldn’t forget about people. Real democratic values and a more equal society would allow people to see themselves as part of society within nature, having a role to play and having decision-making power. If we want to tackle these big issues, we need to address inequality. If we don’t have people, we can’t solve our problems.

663%
INCREASE IN
WILDFIRES

3.2BN
TONNES OF CARBON
STORED IN UK
PEATLANDS

856
WILDFIRES
RECORDED

INDONESIA

Spanning more than 13 million hectares, Indonesia’s tropical peatlands are among the largest on Earth.²³

Carbon stored in Indonesian peatlands is estimated to be between 55 to 57 billion tonnes, roughly on par with over two years’ of global CO₂ energy emissions at the present rate.^{24,25} These carbon-dense ecosystems play a critical role in sustaining local livelihoods and strengthening global climate resilience, and peatland fires exacerbate emissions.

“We believe the peatland is a precious ecosystem. It is not a wasteland. We can use it to support locals, support Indigenous peoples. There are a lot of commodities that can expand the local livelihoods without damaging the ecosystem in the peatland. It can preserve the atmosphere, [it can] slow down climate change. And when we talk about the real impact, it can give a lot of benefits to the locals in the community.”²⁶

In spite of their importance for local livelihoods and biodiversity, peatlands in Indonesia are severely threatened by human activities. Peatlands have been subject to widespread drainage for industrial agriculture, particularly palm oil plantations, which increases their susceptibility to fire. Fires are used as a cost-effective method to clear land in Indonesia, but can cause peatland fires on a large scale.^{27,28} Research shows that more than half (54%) of the 3.8 million hectares at high risk of forest and land fires within peat hydrological units fall within corporate concessions and adjacent areas.

Further, between 2015 and 2019, 30% of all mapped fire areas occurred within palm oil and pulpwood concession areas.²⁹

“The carbon emissions are bigger [in peatland fires], at least in recent fires in 2019 and 2023, even when the [burned] area is smaller than other years. In this ecosystem [peatlands], it’s more difficult to handle it because the fire can run more strongly. It has a bigger haze; that’s why the government, many times, gets complaints from nearby states, like Thailand and the Philippines.”

- Wahyu Perdana, Advocacy, Campaign, and Communication Manager with Pantau Gambut, told EJF.

Experts interviewed by EJF in September and October 2025 stressed that effective wildfire management in Indonesia must prioritise addressing the primary driver of risk: industrial-scale land clearing. Neglecting these root causes risks undermining long-term progress and worsening local impacts. A representative from Pantau Gambut told EJF:

“[Plantation] concessions are a source of the wildfires. A lot of plantations in Indonesia are dependent on locals. They hire locals as workers, so there is a mutual dependency. When this condition still exists, the cycle continues for a long time. We try to cut the evil cycle, so that when the locals don’t work anymore for concessions, we believe they can cultivate the land by themselves. They can get a lot of money with that, they can increase their economy.”

“

In developed countries, it’s due to climate change. Not man-made fires. My concern is about, generally, how to combat climate change. Fires will happen again and again because we have not been able to avoid emissions. We need to work together globally. Now, under the current economic and political situation, it seems like the solution is far, far away.

- Dr. Herry Purnomo, Center for International Forestry Research Indonesia Country Program Director



PANTANAL, BRAZIL

Wildfires around Porto Jofre,
North Pantanal, November 2023.

The Pantanal, the world's largest tropical wetland, is increasingly threatened by wildfires.

Spanning Brazil, Paraguay, and Bolivia, this globally significant ecosystem is experiencing widespread biodiversity loss and increased carbon emissions as fires intensify. These fires also pose a serious risk to the Indigenous and traditional communities who depend on, and have long protected, this landscape. In 2025, wildfires have already consumed over 100,000 hectares in the Pantanal, burning an area larger than Singapore.^{30,31}

During the most recent wildfire season, smoke pushed air pollution levels in Brazil up to 60 times higher than World Health Organisation air quality standards, and caused over US\$200 million in economic losses in the Pantanal, mainly in agribusiness.³²

“

It is troubling when the fire comes, because the people inside the territory become very worried, especially the children. The firefighters go out to protect from the fire. So we were left alone here in the village, with much concern. Only with a bucket, with a cup, to protect some houses.

- **Rozinete Marino**, local Indigenous teacher, told EJF.

In 2020, the Pantanal experienced an unprecedented wildfire crisis that scorched one-third of its territory, resulting in the death of over 17 million vertebrates, and released more than 115 million tonnes of

carbon dioxide, more than Belgium's emissions in the same year.^{33,34,35} Since then, massive fires have become increasingly frequent, with climate change identified as a key driver. In 2024, extreme wildfire events were made up to five times more likely due to human-induced global heating.³⁶ By June 2024, the number of fires in the Pantanal had surged by an astonishing 1,500% compared to the same period in 2023.³⁷ Symptomatic of the deepening crisis, earlier this year, Brazil declared a nationwide environmental emergency in anticipation of the wildfire season.³⁸

Indigenous firefighting brigades in Brazil are on the frontlines of wildfire response, drawing on generations of land stewardship and traditional ecological knowledge. However, the escalating impacts of global heating, which are driving more frequent and intense fire events, are placing these communities under increasing danger and pressure.

“

During this fire that happened in 2020, we had no equipment at all. We had no training at all. We fought [the fire] in the way we understood, with what we had available. And when it passed, it had devastated our territory completely. That shocked the community.

- **Roberto Maridoprado**, Chief of the Perigara Indigenous firefighters.

EJF provides drone and safety training that enables firefighters to spot wildfires and determine their direction of travel, helping optimise their capacity to contain them and to save lives.

A firefighter during a wildfire in Kadiweu territory, Brazil, September 2024.

CASE STUDY

“

VOICES FROM THE FRONTLINE: INDIGENOUS FIREFIGHTERS IN THE PANTANAL

In the heart of the Pantanal, Indigenous firefighters are uniting to protect their land and communities from the growing risk from wildfires:

People who go to fight in combat, we have to be very careful. The smoke harms us and we have to be careful with the houses, the animals. The fire, it causes a lot of harm. It affects us during the dry season. In August. It's mostly the smoke that spreads. Then we get intoxicated and often can't breathe. When the smoke cloud really descends, everyone struggles to breathe. It's tough.

- **Elielza** | Guató Indigenous firefighter

I believe that from 2020 and even in 2024, over these years, we've been greatly affected by the fires. The fire didn't completely reach our island here, but it came close, right here in front, very close. And what harms us most is the smoke. And the effects left behind by the fire, which harm our community here.

- **Matheus** | Guató Indigenous firefighter

It was a very difficult year. There were many fires, everything around us burned and the fire spread a lot, and some houses were at risk of burning. And there was the brigade, the firefighters who came here to help us and thank God the worst did not happen, because these people were with us, and it was difficult, there was fire everywhere, and it was not easy, it was a very tough time.

- **Marinalva** | Riverside community firefighter



LOS ANGELES, CALIFORNIA

© Rezeta Veliu,
Project HOPE, 2025

Damage from the Palisades
wildfire in Los Angeles.

On January 7 2025, several fires flared across Los Angeles, with the two most significant being the Palisades fire, which burned over 9,300 hectares, and the Eaton fire which damaged over 5,600 hectares.^{39,40}

Collectively, they destroyed over 16,000 structures, including homes and businesses.^{41,42} The scale of destruction and displacement caused by the Palisades and Eaton fires shocked the Los Angeles community. These two fires now rank among the top 10 most deadly and destructive in California's history.^{43,44}

The Los Angeles fires illustrate how global heating is reshaping risk maps and shifting longstanding assumptions. The intensity and extent of the fires were a direct result of the climate crisis, with reduced rainfall and flammable drought conditions converging with strong winds.⁴⁵

EJF spoke with **Chessa Latifi**, Deputy Director of Emergency Preparedness and Response with Project HOPE, about how the crises she has responded to across the world became deeply personal to her own community:

16,000

BUILDINGS
DESTROYED

440

TOTAL FATALITIES,
INCLUDING INDIRECT
DEATHS

“

I live here in Los Angeles. I'm only a couple of miles away from the Palisades. My kids go to school here. I saw them start around 11:00 AM. I could see the smoke rising. I thought, oh man, that's kind of close, but we had fires all the time. It's an urban area, so it could have been a building. I didn't think much of it, but I was watching it and decided to pick up my kids early. Not because I thought the fire would ever reach the school, but I was worried there would be traffic and I'd have trouble reaching them. When I got to the school, around 3:00 PM, the information was coming out that the Palisades were under evacuation and the fire was whipping through. I picked up the kids. Everyone was picking up their kids early. I turned the corner and could see the fire in my rearview mirror. It was close. Not only was it close, but it was also such a populated area.

Later that night, the Eaton fire happened. Information was coming out that these highly populated areas were burning. We were watching the local news. The fires were moving so quickly. Even four miles away, I could see them from the top level of my house. The wind was insane. The heat was so dry. You could feel it in the air. It's LA, there are palm trees everywhere. They were at a 45-degree angle. In the morning, everything was blanketed in smoke and dust.

CASE STUDY

The entire city and beyond went through 10 days of intense fear. It wasn't just that the Palisades and Eaton fires weren't contained, it was that hotspots were flaring up everywhere. Everything stopped. Businesses weren't running. People weren't leaving their houses. Schools were closed. There were huge economic impacts.

I would go to distribution sites and be asked, 'Do you think all of these people were displaced?' But it didn't matter whether they were. We were all impacted. Maybe people were there looking for food because they didn't have work that week. The health impacts were there. We were masking up and running air filters, but if you didn't have the finance to buy air masks or filters, or have the health information, or if your job didn't offer you the opportunity to stay inside or work remotely, there is a significant impact beyond just being displaced.

30 people were initially reported to have died in the fires, although the total death toll eventually rose to 440 when including deaths from smoke exposure, healthcare service disruptions and the mental health toll.⁴⁶ The total wage loss for local businesses and employees was estimated at US\$297 million, and the fires caused 150,000 evacuations.^{47,48} The overall human and financial costs unfolded over the weeks and months, with health impacts set to endure over the longer term.

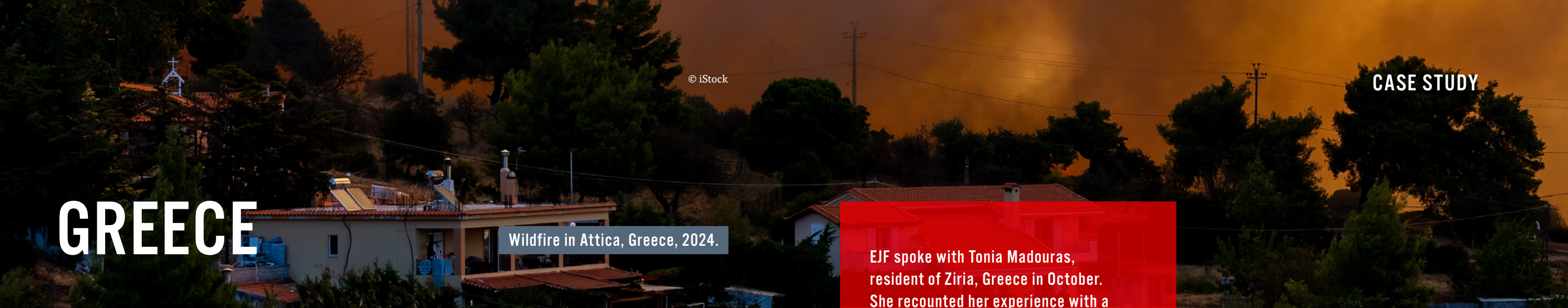
There are lasting psychological impacts in the community, particularly for vulnerable groups.

“We worked with children who had lost their homes. One of my mental health specialists got a call from a parent who said her son woke up in the middle of the night in a nightmare and panic attack, saying, ‘I have to pack my things, we have to pack’, throwing his things in a bag because he didn't get a chance [last time]. He was at school and then everything was gone. These kids will be affected for the rest of their lives. So many people had to move out of Los Angeles. In my kids' school, there were about 30 to 40 families who lost their homes completely. A significant number just left.”⁴⁹

Just seven months after the Palisades and Eaton fires, another wildfire several hours north of Los Angeles surpassed both in size. Known as the Madre fire, it ignited in early July and burned over 32,000 hectares during a nearly month-long blaze.⁵⁰ Madre was then surpassed by the Gifford fire, which began in August, burning over 53,000 hectares.⁵¹ Concerningly, the threats only continue to loom. In its October 2025 to January 2026 outlook, the National Interagency Fire Center forecasts “above-normal” risk of large fire activity through December of this year in Southern California.⁵²

“I hate the word resilient. As humans, for the most part, we don't just sit down and die. It's within our nature to figure out how to survive. We often have no choice but to be resilient. I would love a world where we didn't have to make people resilient.”

- Chessa Latifi



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GREECE

Wildfire in Attica, Greece, 2024.

Wildfire patterns across the European Union are increasingly concerning. Since the start of 2025, over 1,000,000 hectares have been burned, compared to over 370,000 hectares during the same period last year, a total burned area equivalent to nearly one-third of Belgium.⁵³

These fires have emitted nearly 42 million tonnes of carbon dioxide, over double the emissions from the same period in 2024.⁵⁴ Greece is among the countries most severely affected.⁵⁵ To date, 47,753 hectares have burned, exceeding the 41,948 hectares the previous year: an increase made up of fewer individuals, but larger and more severe fires.⁵⁶

The past four years have seen some of the country’s most devastating fire seasons in recent history, a pattern that seems likely to persist, if not intensify with global heating.⁵⁷

An analysis of recent fire threats in Greece, Turkey and Cyprus found that global warming has made the weather conditions driving wildfires up to ten times more likely.

Without climate change, the study found, fire events of this severity would only occur only once every 100 years.⁵⁸

Large fires in Greece threaten communities, farmland and ecologically important areas. In 2023, Greece made headlines as the largest wildfire ever recorded in the EU tore through the country, burning over 96,000 hectares.⁵⁹ The devastating fires in 2023 took the lives of twenty people, most of whom were refugees and migrants.⁶⁰

Fires in Greece actively threaten areas designated to protect precious and vulnerable biodiversity. In 2024, nearly 11,000 hectares of burned areas in Greece were within EU Natura 2000 sites or other protected areas.⁶¹ The percentage of protected areas being burned per wildfire event is higher and accelerating faster than Portugal and Italy, which also face high wildfire risks.⁶² This alarming trend is expected to continue.

EJF spoke with Tonia Madouras, resident of Ziria, Greece in October. She recounted her experience with a wildfire that struck her village in 2022:

“

Wildfires here, usually it’s very windy and extremely hot. The one that happened here to me, I heard two blasts, bang, bang, and then I saw the fire. There was a fire the week before, but that was because somebody wasn’t being cautious. But this one, it came to our house in not even five minutes. There was so much wind going right to the village. We were the first house to get hit. The police saved our house and told us to leave. We were lucky.

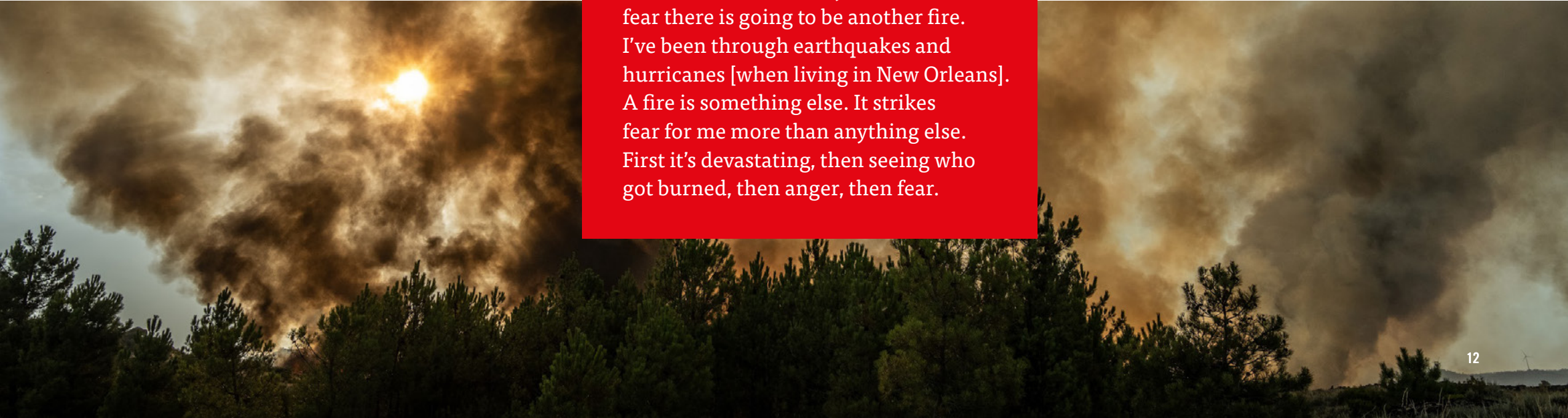
It swept all around our house. It burned everything. Small-time farms. It burned olive trees, trees that are hundreds of years old. You can still see the burned areas, the brown areas.

It’s scary. People are just scared every summer. There is always a constant fear there is going to be another fire. I’ve been through earthquakes and hurricanes [when living in New Orleans]. A fire is something else. It strikes fear for me more than anything else. First it’s devastating, then seeing who got burned, then anger, then fear.

During the most recent wildfire season this summer, fires forced the evacuation of over 32,000 people, as well as thousands of tourists. The blazes tore through homes, resorts and farmland, disrupting daily life and tourism, a significant sector that contributes 18% to the local GDP.^{63,64}

People don’t want to be forced to leave their homes behind. When EJF asked Tonia if residents in her village are considering leaving as the risks of wildfires increase, she simply said:

“**They stay. Where are they going to go?**”



THE CONGO BASIN

The Congo Basin is often referred to as the “lungs of Africa”. It is the world’s largest tropical forest carbon sink and contains the largest remaining area of intact tropical forest, much of which is largely undisturbed by human activity.⁶⁵

Its environmental value, rich biodiversity and vital role in combating the climate crisis cannot be overstated. It contains the largest tropical peatland complex, which stores an estimated 29 billion tonnes of carbon dioxide, equivalent to around 33 years of greenhouse gas emissions from the EU.^{66,67}

“

This particular part [peatlands] of the Congo Basin is probably one of the least human impacted and disturbed. In terms of conservation, you have lowland gorillas, forest elephants, and several other endangered primates. In many ways, this is a last bastion of all kinds of tropical biodiversity in Central Africa.⁶⁸

As global heating and human activity reshape our world, however, they expose us to new risks. Climate change is dramatically intensifying fire risk in the Congo Basin, increasing the likelihood of weather conducive to fire by up to eight times.⁶⁹ The threat, scale and severity of fires are expanding globally, putting ecosystems and livelihoods at growing risks, even in areas where fires were not previously a major concern. An alarming study of fire trends in the tropical forests of Central and West Africa

revealed that active fires have doubled over just 18 years, most notably in the Congo Basin, fueled by rising temperatures, prolonged droughts, and human-driven deforestation.⁷⁰ As the climate crisis deepens, these numbers are expected to rise further.⁷¹

EJF spoke with **Dr. Michael Wimberly** about a significant yet often underexamined issue: the Congo peatlands as a critical area to watch as global wildfire threats increase.

THE CONGO PEATLANDS - A CRITICAL AREA TO WATCH AS GLOBAL WILDFIRE THREATS INCREASE

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The Congo peatlands are absolutely an area to be concerned about. These landscapes are amazing. Part of it is that we didn’t quite appreciate how much peat there was, until about a decade ago people started actually measuring the peat and how much carbon is stored.

Right now, amazingly, much of these peatlands in the Congo Basin are fairly pristine. There are huge areas that have had relatively low human impact so far. But what we’ve seen in many other parts of the tropics is when you start to get human encroachment, whether it’s logging or clearing for agriculture, fire follows.

Once fire starts to get into tropical forest and tropic peatlands, it has insidious effects.

When peat burns, it’s what we call a ground fire. The peat smolders, but it goes on and on. Once you start to get fire into a tropical forest, it kills some trees and reduces some overstory cover and lets understory vegetation expand, then those forests become more susceptible to fire the next time around. Once fire starts to encroach, you get an unraveling of that tropical ecosystem.

Carbon is at risk. Estimates of up to 30 billion tonnes of carbon are stored [in Congo peatlands], and that is carbon that has very slowly accumulated over time. If we lose that carbon, there is substantial feedback into the global climate system. That’s not just a local impact on the ecosystems.

Fire in the moist and wet tropics is an untold story. The fires in the tropics look unimpressive compared to huge wildfires in the Western U.S. They are slow moving ground fires or smouldering fires in peat that are hard to detect. But because many tropical ecosystems are not adapted to fire, these small fires have big impacts. There is a feedback effect built in: you get a little bit of fire, making the forest more conducive to fire, and then you get a little bit more. What you end up with are cumulative effects over years and decades.

In the long term, it can result in the loss of forest vegetation and conversion to fire maintained shrub or grassland vegetation.

Climate change mitigation is very important. It’s cross-cutting. The extent to which we can limit climate warming going forward will have a pantropical impact and give us a better chance at protecting tropical forests and maintaining the tropical forest carbon sink.”

Crucially, any attempt to address the growing threat of wildfires must prioritise the rights and agency of local communities. Sustainable fire management must be grounded in local realities, recognising people’s dependence on natural resources and ensuring meaningful inclusion in governance and decision-making processes.

“There are people living in this part of the Congo. They certainly make use of ecosystem services from the forest. For these people, development is not a bad thing, but it’s a double-edged sword. We see negative impacts on ecosystem services, whether food, resources, wood, or water that local people are utilising. We need to acknowledge the right and need of local people to use resources to improve their standard of living. We need to support it in a way that can be done sustainably and avoid many of the environmental tragedies that we’ve seen in other areas.”

- Dr. Michael Wimberly

CONCLUSION

Wildfires are not isolated, random events. They are symptoms of a deeper, global crisis fuelled by climate breakdown, unsustainable land use and economic systems that reward, rather than penalise, environmental degradation.

This is not just a problem for regions prone to fires, it is a global crisis that affects us all. Yet, too often, responses are reactive, ignoring the root causes and sidelining the voices of those on the frontlines.

At COP30, we have a critical opportunity to change course. It's time for bold climate action and justice-centred solutions. This can be a turning point to stop the devastating cycle of record-breaking wildfires by strengthening climate commitments, holding polluters accountable, fostering international cooperation and centring nature-based solutions.

A man walks through a recently extinguished fire in Sarılar, Manavgat, Antalya, Turkey.

EJF RECOMMENDATIONS

1. Acknowledging global heating as a major driver that amplifies wildfire risks across borders, and strengthening international collaboration to address these challenges collectively through drastic cuts in greenhouse gas emissions and scaled up funding for climate adaptation.
2. Protecting and restoring carbon-rich ecosystems such as wetlands with targeted financing for nature-based solutions, recognising their critical role in the climate agenda.
3. Integrating Indigenous and local community knowledge into wildfire management policies, recognising their unique expertise as custodians of their land.

**THE MESSAGE IS CLEAR:
WILDFIRES GLOBALLY ARE
THREATENING PEOPLE
AND THE PLANET.**



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REFERENCES

- Cunningham, C.X., Abatzoglou, J.T., Kolden, C.A., Williamson, G.T., et al. (2025) 'Climate-linked escalation of societally disastrous wildfires', *Science*, 390, 53-58, <https://doi.org/10.1126/science.adr5127>.
- Kelley, D.I, Burton, C., Di Giuseppe, F., Jones, M.W. et al. (2025) 'State of Wildfires 2024-2025', *Earth System Science Data*, 17, <https://doi.org/10.5194/essd-17-5377-2025>.
- Ibid.
- Cunningham, C.X., Williamson, G.T., Bowman, D. M. J. S (2024) 'Increasing frequency and intensity of the most extreme wildfires on Earth', *Nat. Ecol. Evol.*, 1-6, <https://doi.org/10.1038/s41559-024-02452-2>.
- Kelley, D.I, Burton, C., Di Giuseppe, F., Jones, M.W. et al. (2025) 'State of Wildfires 2024-2025', *Earth System Science Data*, 17, <https://doi.org/10.5194/essd-17-5377-2025>.
- Potapov, P., Tyukavina, A., Turubanova, S., Hansen, M.C. et al. (2025) 'Unprecedentedly high global forest disturbance due to fire in 2023 and 2024', *Proc. Natl. Acad. Sci. U.S.A.*, 122 (30) e2505418122, <https://doi.org/10.1073/pnas.2505418122>.
- MacCarthy, J., Richter, J., Tyukavina, S., Harris, N. (2025) 'The Latest Data Confirms: Forest Fires Are Getting Worse', *World Resources Institute*, 21 July 2025, <https://www.wri.org/insights/global-trends-forest-fires>.
- Kelley, D.I, Burton, C., Di Giuseppe, F., Jones, M.W. et al. (2025) 'State of Wildfires 2024-2025', *Earth System Science Data*, 17, <https://doi.org/10.5194/essd-17-5377-2025>.
- Ibid.
- Teymoor Seydi, S. et al (2025) 'Increasing global human exposure to wildland fires despite declining burned area', *Science*, 389,826-829, <https://doi.org/10.1126/science.adu6408>.
- Our World in Data, 'Number of deaths from wildfires, World', https://ourworldindata.org/explorers/natural-disasters?time=2000..latest&facet=none&Disaster+Type=Wild-fires&Impact=Deaths&Timespan=Annual&Per+capita=false&country=-OW-ID_WRL (accessed 20 October 2025).
- Our World in Data, 'Total number of people affected by wildfires, World', https://ourworldindata.org/explorers/natural-disasters?time=2000..latest&facet=none&Disaster+Type=Wild-fires&Impact=Total+affected&Timespan=Annual&Per+capita=false&country=-OW-ID_WRL (accessed 20 October 2025).
- State of Wildfires Project (2025) *State of Wildfires 2024-25: Summary for Policymakers*, <https://stateofwildfires.com/latest-report/>.
- Ibid.
- National Fire Chiefs Council (2025) 'Record numbers of wildfires are putting services under huge strain, warn Fire Chiefs', 13 August 2025, <https://nfcc.org.uk/record-numbers-of-wildfires-are-putting-services-under-huge-strain-warn-fire-chiefs>.
- Ibid.
- UNEP (2022). *Global Peatlands Assessment – The State of the World's Peatlands: Evidence for action toward the conservation, restoration, and sustainable management of peatlands*. Main Report. Global Peatlands Initiative. United Nations Environment Programme, Nairobi.
- UK Centre for Ecology & Hydrology (n.d.) *Peatlands factsheet*, <https://www.ceh.ac.uk/sites/default/files/Peatland%20factsheet.pdf>.
- Baker, S.J, Perry, M.C., Betts, R.B., Schoe-necker, J., Pellegrini, A.F (2025) 'Spikes in UK wildfire emissions driven by peatland fires in dry years, *Environmental Research Letter*, 20, 034028, <https://iopscience.iop.org/article/10.1088/1748-9326/adafc6>.
- Dr. Andreas Heinemeyer, ecosystem ecologist, per comms with EJF, October 2025.
- Rossi, S., Tubiello, F. N., Prosperi, P., Salvatore, M., Jacobs, H., Biancalani, R., House, J. I., & Boschetti, L. (2016). FAOSTAT estimates of greenhouse gas emissions from biomass and peat fires. *Climatic Change*, 135(3-4), 699-711. <https://doi.org/10.1007/S10584-015-1584-Y/FIGURES/4>; UNEP (2022). *Global Peatlands Assessment – The State of the World's Peatlands: Evidence for action toward the conservation, restoration, and sustainable management of peatlands*. Main Report. Global Peatlands Initiative. United Nations Environment Programme, Nairobi.
- Calculated based on total global GHG emissions reported for 2023 in European Commission (2024) 'EDGAR - Emissions Database for Global Atmospheric Research. GHG emissions of all world countries.' 2024 Report. https://edgar.jrc.ec.europa.eu/report_2024?vis=ghgtot#emissions_table (accessed 5 February 2025)
- Baker, S.J, Perry, M.C., Betts, R.B., Schoe-necker, J., Pellegrini, A.F (2025) 'Spikes in UK wildfire emissions driven by peatland fires in dry years, *Environmental Research Letter*, 20, 034028, <https://iopscience.iop.org/article/10.1088/1748-9326/adafc6>.
- Miller, M.A, Tonoto, P., Taylor, D. (2021) 'Sustainable development of carbon sinks? Lessons from three types of peatland partnerships in Indonesia', *Wiley*, 30, pp. pp. 241-255, <https://doi.org/10.1002/sd.2241>.
- International Energy Agency (2025), *Global Energy Review 2025*, <https://www.iea.org/reports/global-energy-review-2025>.
- Representative of Pantau Gambut, an organisation advocating for the protection of peatlands in Indonesia, per comms with EJF, September 2025.
- Benedict, J., & Heilmayr, R. (2024). 'Indonesian palm oil exports and deforestation', *Trase*, <https://doi.org/10.48650/oZP9-GH11>.
- Pantau Gambut (n.d.) 'Causes', <https://en.pantaugambut.id/peat-101/causes>.
- Ramadhi, A., Prakoso, A., Perdana, W.A, Amukti, R. et al. (2023) *Unveiling Forest and Land Fires Vulnerability in the Peat Hydrological Unity Area (PHU) in 2023*, Pantau Gambut, https://pantaugambut.id/storage/widget_multiple/eng-laporan-kerentan-karhutla-2023-compressed-KeKpo.pdf.
- ALARMES (n.d.,) 'Fire Management Platform', <https://alarmes.lasa.ufrij.br/>.
- Singapore Department of Statistics (2025), 'Environment', <https://www.singstat.gov.sg/publications/reference/ebook/society/environment>.
- State of Wildfires Project (2025) *State of Wildfires 2024-25: Summary for Policymakers*, <https://stateofwildfires.com/latest-report/>.
- Environmental Justice Foundation (2023) *Paradise Lost? Protecting the Pantanal, a precious ecosystem in crisis*, <https://ejfoundation.org/reports/paradise-lost-protecting-the-pantanal>.
- Pletsch, M., Silva Junior, C., Penha, T., Körting, T. et al. (2021) 'The 2020 Brazilian Pantanal fires', *SciELO*, <https://doi.org/10.1590/0001-3765202120210077>.
- Global Carbon Atlas (undated), 'Emissions: Territorial (MtCO₂)', <https://globalcarbonatlas.org/emissions/carbon-emissions/> (accessed 22 June 2023).
- Kelley, D.I, Burton, C., Di Giuseppe, F., Jones, M.W. et al. (2025) 'State of Wildfires 2024-2025', *Earth System Science Data*, 17, <https://doi.org/10.5194/essd-17-5377-2025>.
- Brasil de Fato (2024) 'Pantanal suffers from a rise in wildfires and obliges governments to take emergency measures', 20 June 2024, <https://www.brasildefato.com.br/2024/06/20/pantanal-suffers-from-a-rise-in-wildfires-and-obliges-governments-to-take-emergency-measures/>. Reported using data from Brazil's Institute for Space Research (INPE).
- Hanbury, S. (2025) 'Brazil declares environmental emergency ahead of 2025 fire season', *Mongabay*, 20 March 2025, <https://news.mongabay.com/short-article/2025/03/brazil-declares-environmental-emergency-ahead-of-2025-fire-season/>.
- CAL FIRE (n.d.) 'Palisades Fire', <https://www.fire.ca.gov/incidents/2025/1/7/palisades-fire>.
- CAL FIRE (n.d.) 'Eaton Fire', <https://www.fire.ca.gov/incidents/2025/1/7/eaton-fire>.
- CAL FIRE (n.d.) 'Palisades Fire', <https://www.fire.ca.gov/incidents/2025/1/7/palisades-fire>.
- CAL FIRE (n.d.) 'Eaton Fire', <https://www.fire.ca.gov/incidents/2025/1/7/eaton-fire>.
- CAL FIRE (n.d.) 'Top 20 Deadliest California Wildfires', https://34c031f8-c9fd-4018-8c5a-4159cdf6b0d-cdn-endpoint.azureedge.net/-/media/calfire-website/our-impact/fire-statistics/top20_deadliest_072525.pdf?rev=2c10213901a3414bb59d68dd776f2277&hash=9762DoA17EEB2550C799638FAoCC9862.
- CAL FIRE (n.d.) 'Top 20 Most Destructive California Wildfires, h;tps://34c031f8-c9fd-4018-8c5a-4159cdf6b0d-cdn-endpoint.azureedge.net/-/media/calfire-website/our-impact/fire-statistics/top20_destruction_072525.pdf?rev=690a70d-756914b6a9cab7936198d384a&hash=C-DoEC804FAA5137C2BB22BE1792AD9A4.
- World Weather Attribution (2025) 'Climate change increased the likelihood of wildfire disaster in highly exposed Los Angeles area', 28 January 2025, <https://www.worldweatherattribution.org/climate-change-increased-the-likelihood-of-wildfire-disaster-in-highly-exposed-los-angeles-area/>.
- Paglino, E., Raquib, R.V. & Stokes, A.C. (2025) 'Excess Deaths Attributable to the Los Angeles Wildfires From January 5 to February 1, 2025', *JAMA*, leading to flammable drought conditions that converged https://jamanetwork.com/journals/jama/fullarticle/10.1001/jama.2025.10556?utm_campaign=articlePDF%26utm_medium=articlePDFlink%26utm_source=articlePDF%26utm_content=jama.2025.10556.
- Li, Z. & Yu, W. (2025) *Economic Impact of the Los Angeles*, UCLA Anderson School of Management, <https://www.anderson.ucla.edu/about/centers/ucla-anderson-forecast/economic-impact-los-angeles-wildfires>.
- Kelley, D.I, Burton, C., Di Giuseppe, F., Jones, M.W. et al. (2025) 'State of Wildfires 2024-2025', *Earth System Science Data*, 17, <https://doi.org/10.5194/essd-17-5377-2025>.
- Chessa Latifi per comms with EJF, October 2025.
- CAL FIRE (n.d.) 'Madre Fire', <https://www.fire.ca.gov/incidents/2025/7/2/madre-fire>.
- CAL FIRE (n.d.) 'Gifford Fire', <https://www.fire.ca.gov/incidents/2025/8/1/gifford-fire>.
- National Interagency Fire Centre (2025) National Significant Wildland Fire Potential Outlook, https://www.nifc.gov/nicc-files/predictive/outlooks/monthly_seasonal_outlook.pdf.
- European Union Joint Research Centre (2025) 'Current wildfire situation in Europe', https://joint-research-centre.ec.europa.eu/projects-and-activities/natural-and-man-made-hazards/fires/current-wildfire-situation-europe_en.
- Ibid.
- Ibid.
- EFFIS (2025), 'Annual Statistics for Greece', <https://forest-fire.emergency.copernicus.eu/apps/effis.statistics/estimates>.
- Ntasiou, Z. (2025) 'Lessons learned from the 2024 fire season in Greece', *European Union Civil Protection Knowledge Network*, <https://civil-protection-knowledge-network.europa.eu/news/lessons-learned-2024-fire-season-greece>.
- World Weather Attribution (2025) 'Weather conditions leading to deadly wildfires in Türkiye, Cyprus and Greece made 10 times more likely due to climate change', 28 August 2025, <https://www.worldweatherattribution.org/weather-conditions-leading-to-deadly-wildfires-in-turkiye-cyprus-and-greece-made-10-times-more-likely-due-to-climate-change/>.
- European Union Joint Research Centre (2024) 'Wildfires: 2023 among the worst in the EU in this century', 10 April 2024, https://joint-research-centre.ec.europa.eu/jrc-news-and-updates/wildfires-2023-among-worst-eu-century-2024-04-10_en.
- Guerin, O., Koukoumakas, K., Kawaf, F. (2023) 'Greek fires rage after migrant tragedy near border', *BBC News*, 23 August 2023, <https://www.bbc.co.uk/news/world-europe-66590914>.
- San-Miguel-Ayanz, J., Durrant, T., Boca, R., Maianti, P., Libertà, G. et al. (2025) *Advance report on forest fires in Europe, Middle East and North Africa 2024*, Publications Office of the European Union, <https://data.europa.eu/doi/10.2760/1264626>.
- Moustakas, A. (2025) 'Analytics and Trends over Time of Wildfires in Protected Areas in Greece and Other Mediterranean Countries', *MDPI*, <https://doi.org/10.3390/fire8080324>.
- World Weather Attribution (2025) 'Weather conditions leading to deadly wildfires in Türkiye, Cyprus and Greece made 10 times more likely due to climate change', 28 August 2025, <https://www.worldweatherattribution.org/weather-conditions-leading-to-deadly-wildfires-in-turkiye-cyprus-and-greece-made-10-times-more-likely-due-to-climate-change/>.
- Hellenic Republic (n.d.) 'For a Sustainable Tourism Industry', <https://www.mfa.gr/usa/en/about-greece/tourism/for-sustainable-tourism-industry.html>.
- World Economic Forum (2025), 'The Democratic Republic of Congo to create the Earth's largest protected tropical forest reserve', 22 January 2025, <https://www.weforum.org/stories/2025/01/congo-kivu-kinshasa-green-corridor/>.
- UNEP (2022). *Global Peatlands Assessment – The State of the World's Peatlands: Evidence for action toward the conservation, restoration, and sustainable management of peatlands*. Main Report. Global Peatlands Initiative. United Nations Environment Programme, Nairobi.
- Calculated based on EU GHG emissions reported for 2023 in European Commission (2024) 'EDGAR - Emissions Database for Global Atmospheric Research. GHG emissions of all world countries.' 2024 Report. https://edgar.jrc.ec.europa.eu/report_2024?vis=ghgtot#emissions_table (accessed 5 February 2025)
- Dr. Michael Wimberly, landscape ecologist,per comms with EJF, September 2024.
- Kelley, D.I, Burton, C., Di Giuseppe, F., Jones, M.W. et al. (2025) 'State of Wildfires 2024-2025', *Earth System Science Data*, 17, <https://doi.org/10.5194/essd-17-5377-2025>.
- Wimberly, M. C., Wanyama, D., Doughty, R., Peiro, H. et al (2024) 'Increasing Fire Activity in African Tropical Forests Is Associated With Deforestation and Climate Change', *AGU*, <https://doi.org/10.1029/2023GL106240>.
- Ibid.





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