
salon

Looking for home in an overheating world: If emissions continue, will we all be migrants someday?

Where will we go to find safety from fire, floods, and extreme storms? Will we ever find home again?

By [JANE BRAXTON LITTLE](#)
PUBLISHED JUNE 6, 2023 4:00AM (EDT)



A home is engulfed in flames as the Dixie fire rages on in Greenville, California on August 5, 2021. (JOSH EDELSON/AFP via Getty Images)

This piece originally appeared on [TomDispatch](#).

Greenville, CA — Pines and firs parched by a three-year drought had been burning for days on a ridge 1,000 feet above my remote mountain town. On August 4, 2021, the flames suddenly flared into a heat so intense it formed a molten cloud the color of bruised flesh. As that sinister cumulus rose above an oval-shaped reservoir, it collapsed, sending red-hot embers down the steep slopes toward Greenville in a storm of torched trees and exploding shrubs. It took less than 30 minutes for the Dixie fire to transform my town's tarnished Gold Rush charm into a heap of smoldering hand-hewn timbers and century-old brick walls.

Minutes earlier, the last of the nearly 1,000 residents had bolted, some in shirts singed by flames. We fled with what belongings we could take in the face of a fire few believed would ever destroy our town. I was [among the evacuees](#), escaping with a hastily assembled truckload of journals and notebooks, shoes and shovels, laptops and passports. We scattered in the sort of desperate diaspora that has become ever more common in towns like ours across the West.

The [Dixie fire](#) left more than 700 residents of Greenville and its surroundings homeless. (While my office in town was demolished, my home on its outskirts escaped the flames.) Displaced by wildfire in a forest both poorly managed and dried by a warming planet, we burned-out residents joined America's swelling ranks of climate migrants. Many of us found temporary shelter in neighboring small towns. Others went to Reno or Los Angeles, Idaho, Missouri, or Kentucky, where relatives and friends were ready to offer at least temporary safety.

My neighbors in Greenville, Indian Falls, and Canyon Dam weren't the only victims of climate-driven fires that summer. Near Lake Tahoe, 100 miles to the south, the [Caldor fire](#) crossed the crest of the Sierra Nevada mountains, destroying more than 1,000 structures and forcing the entire city of South Lake Tahoe to evacuate. Nor were wildfires the only all-American calamities caused by our rapidly warming planet that year: [Hurricane Ida](#) pummeled Louisiana and Mississippi with 150-

mile-an-hour winds; a crippling [megadrought](#) of a sort not seen in 1,200 years gripped the Southwest; and an unprecedented [heat dome](#) in the Pacific Northwest drove temperatures to 121 degrees Fahrenheit (49.5 degrees Celsius).

Think of the destruction of my adopted hometown as a parable for what the next century of climate change holds in store for this country, as Jake Bittle makes all too clear in his book *The Great Displacement: Climate Change and the Next American Migration*. By the end of 2021, [one in three Americans](#) had already experienced some kind of weather disaster driven by climate change and last year alone more than [three million Americans](#) lost their homes to climate disasters.

These days, it's the sort of heartbreaking tale told [around the globe](#), one that will, it seems, only worsen into the distant future. By 2050, it's now believed that between 31 million and 72 million people across sub-Saharan Africa, South Asia, and Latin America will be displaced due to water stress, sea level rise, or crop failures, according to an estimate in the most recent [report](#) of the International Panel on Climate Change (IPCC). Unless we dramatically curb greenhouse-gas emissions in the years to come, scientists predict that, by century's end, climate-change-caused events will affect every last one of us.

Where will we go to find safety from fire, floods, and extreme storms then? How long will those of us uprooted from our homes have to stay in evacuation sanctuaries? Will we ever find home again?

"Unpredictable, Chaotic, and Life-Changing"

The term *climate migration* has an orderly, almost bucolic ring to it, evoking as it does the age-old seasonal treks of caribou, wildebeests, and other charismatic species. In human terms, it suggests coastal residents dealing with flooding by simply moving inland and continuing their lives, or forest dwellers relocating from burn scars to places where the risk of wildfire is much lower. Unfortunately, in the years to come, count on one thing: climate migration will have a far less peaceful ring to it.

In a sense, of course, migration has always been the story of humanity. Throughout history, people have moved for a myriad of reasons. But what sets today's growing climate-driven migration apart is the way it involuntarily displaces people, increasingly often at an unprecedented pace and scale. The more the planet warms, the more pressure so many of us will face to move, as those IPCC scientists made clear in their 2022 [report](#).

According to the IPCC, most climate migration is still occurring within countries rather than across borders (though that, too, is growing). And while people of every income bracket will be hit by climate disasters, overall such migrants are only expected to increase social inequities. As the IPCC [summary](#) for policymakers puts it, "Across sectors and regions, the most vulnerable people and systems are observed to be disproportionately affected."

But count on one thing: climate migration will be increasingly hard on everyone. As those scientists add: "Through displacement and involuntary migration from extreme weather and climate events, climate change has generated and perpetuated vulnerability." In translation, that's bureaucratese for widespread trauma to come.

And that, claims Bittle, is putting it mildly, since the fossil-fuelization of the [atmosphere](#) (and [the oceans](#)) is already creating disasters of a frequency and intensity that have no precedent in living memory. Over the past decade, the United States has, typically enough, experienced a succession of monumental climate disasters. [Hurricanes](#) have obliterated parts of the Gulf Coast, dumping more than 50 inches of rain in some places. Wildfires have denuded the California wilderness and destroyed thousands of homes. A once-in-a-millennium [drought](#) has dried up western rivers, even forcing farmers to stop planting crops.

As Bittle puts it, "The real story of climate change begins only once the skies clear and the fire burns out." In fact, he insists, *migration* isn't even the right word for the phenomena already taking place across this country. It implies an intentional action, while the response to ever-increasing climate disasters will be tumultuous and frenzied, as

victims try to cope with the destruction of their homes and dreams, while searching for safe and affordable shelter.

His term for it is *displacement*, which, he adds, is "unpredictable, chaotic, and life-changing." (Scientists are similarly now using the term "climate displaced" rather than "refugee.") And such displacement is already altering American geography. In the decades to come, he suggests, climate change will displace more people than the six million Blacks who began moving north in the 1920s to escape the Jim Crow regimes of the former southern plantation states — in other words, a population relocation greater than what became known as the [Great Migration](#).

Where do people go and what do they do after an evacuation? "We're just beginning to sort that out," Deb Niemeier, a transportation engineer at the University of Maryland, told me. They almost always end up in places where they have connections, whether family ones or otherwise, and those, Niemeier points out, tend to be in urban settings.

One of only a handful of studies documenting where climate migrants have gone was launched in 2018 by civil engineer Sarah Grajdura, previously a student of Niemeier's. She began interviewing evacuees in shelters only three weeks after the Camp fire, California's deadliest blaze, killed 85 people in the sadly named town of Paradise. She followed up eight months later.

Where people settled and how long they stayed, she [found](#), varied with income, age, and race, especially as time elapsed. Those with greater financial resources were able, in the end, to resettle nearer their original homes. Younger white evacuees accepted housing farther away, on average 117 miles from their original residences, while Black residents and other people of color generally couldn't afford to move more than 21 miles from their burned-out town.

Retreat or Adapt?

The human upheaval underway should make it obvious to even the most skeptical that our world is changing — that we, in fact, are changing it — in a remarkably radical fashion. Carbon dioxide and other gases that trap heat in the Earth's atmosphere have raised the average temperature of the planet about [two degrees Fahrenheit](#) (1.1 degrees Celsius) since the late nineteenth century. The [ocean](#) has absorbed much of this increased heat, with the top 328 feet showing warming of 0.67 degrees Fahrenheit (0.37 degrees Celsius) just since 1969. Ice sheets are shrinking, glaciers are melting, and snow cover is decreasing. [Global sea level](#) has risen about eight inches in the last century, with the rate in the last two decades nearly double that of the century as a whole.

As more and more of us are uprooted by floods, rising seas, ever fiercer storms, and brutal wildfires, how we view the natural world has become ever more essential to our collective future. Our relationship to the places where we live needs to be re-envisioned. Historically, we Americans have sought to control nature with dams, sea walls, and an all-out federal [campaign](#) to suppress Western wildfires. Clearly, none of that is working any longer.

A handful of communities are starting to think differently about the ecosystems they share and how they interact with them. Several Gulf Coast communities are, for instance, accepting the inevitability of flooding and designing [schools that float](#) to keep their children protected. In New Orleans and elsewhere, entrepreneurs are [experimenting](#) with installing plastic water containers and manufactured dock floats inside the structural subframe of a house. The house and subframe would then be anchored to vertical guideposts, allowing that structure to rise and fall without floating away. In California, dozens of fire-prone communities are adopting the [long-outlawed practices](#) of Native Americans by setting small, controlled burns along forest edges to thwart future town-destroying fires and improve wildlife habitat.

Other communities are starting to accept that the places they chose as home and the houses they've built are simply in the wrong place at the wrong time for a rapidly warming planet. If it's not a fire on the horizon, it's a flood. If not tomorrow, next month, or next year. Instead of waiting to become inadvertent climate migrants evacuating under duress, they are moving in what's becoming known as a *managed retreat*.

Soldiers Grove, Wisconsin, is an early example. In 1978, 600 residents retreated from the Kickapoo River to avoid its rising flood waters. After Superstorm Sandy swamped New York City in 2012, killing 24 people, homeowners in several neighborhoods on Staten Island decided not to wait for the inevitable future. They took buyouts from the state's Office of Storm Recovery, moving to new homes away from the coast. Today, more than 600 properties in that area are being returned to nature and a salt marsh created where deer and turkeys, rabbits and racoons are already moving in. That marshland will, in turn, create a buffer for the homes that remain.

For Erica Gies, who reported on that Staten Island retreat, the possibility of living safely in a time of extreme storm events is transforming our relationship with water. "What does water want?" she asks in her book *Water Always Wins: Thriving in an Age of Drought and Deluge*. Re-envisioning the way we live with water, and with nature more generally, she says, will help create a better world "in which people are happier and communities more adaptable."

Some places, however, are already beyond retreat. On the Bering Sea in 2019, thawing permafrost and erosion forced 380 villagers from Yup'ik, Alaska, to abandon homes where they had lived for centuries. And what about towns like Paradise and Greenville, each destroyed once by wildfire and still all too vulnerable? They are among the communities built "in a particular historical context that no longer exists," as Daniel Swain, a climate scientist at UCLA, puts it. "Whatever risk tolerances that we collectively decided were acceptable, for whatever reason, in whatever context, are no longer valid," he told the *Los Angeles Times* in 2022.

The Pull of Home

For all the documentation of the threats posed to ecosystems that humanity has so violently altered, for all the dangers so many of us have experienced living in them, and for all the uncomfortable questions raised about their future vulnerability, such places often still hold a powerful, almost magnetic draw for us. Gabrielle Wong-Parodi, a Stanford University [behavioral scientist](#), calls such feelings *place attachment*, a powerful commitment to the community people have — or had. Some of that attraction is, of course, simply the security of the familiar. Some is intangible: the smell of coastal fog, the sound of wind in the tops of sugar pines, the sag of wet sand underfoot. It's the draw of home.

As Jake Bittle puts it, "For a lot of people, a hometown is a really essential part of their identity." He [reports](#) on a man who lost his entire neighborhood to a wildfire in Santa Rosa, California. He spent four years with family in Kentucky, but eventually rebuilt in his old neighborhood. The winding road home was even longer for a family that evacuated after [Hurricane Katrina](#) devastated New Orleans and other Gulf of Mexico communities in 2005. Even while forced to live elsewhere, they couldn't help but envision going back "home." It took them about eight years, but eventually they did so.

In our present world, sadly enough, the question always remains: For how long?

The importance of place and the compulsion to go back, despite ever-worsening odds, have Wong-Parodi and other scientists thinking about what resources are available when people do return. How can they better prepare for the known risks and the certainty that, over time, given our overheating planet, they'll only increase?

When it comes to Greenville, my California town now in ruins, the pull to return, as Sue Weber, chair of the Dixie Fire Collaborative, points out, combines a yearning for the physical beauty of the place with a

sense of community and hope. "I wouldn't build back," she says, "if I didn't think there was a way to actually work collectively to create a safer environment."

Less than two years after the Dixie fire, a third of the residents who fled Greenville are committed to rebuilding their homes and businesses. More than 20 already have. They are, however, applying Dixie's harsh lessons to reconstruction, often using [cross-laminated timber](#), [Hardie board](#), and other less flammable materials. And when it comes to restoring the forests that surround the town, they are repurposing Gies's question about water by asking what forests want. Answers are coming from the legacy of the Native Americans who managed these forests when they were far more resilient to fire and drought. The blackened specters that still haunt our hillsides will soon come down; the seedlings that take their place will be native species planted not in lines but in clumps. There will be space for fire to burn through, clearing out decadent brush and small trees to cleanse the land for new growth.

Climate disaster, Weber points out, inspires climate mitigation. "We are in a constant conversation about what that looks like for us... It's going to take years to know whether we really survived or not."

If humanity continues to emit greenhouse gases at anything like the [current rate globally](#), all too many of the rest of us may not have to wait that long. We may once again become climate migrants embarking on our own torturous journeys, following in the [footsteps](#) of last year's three million Americans.

And home will be that elusive pot of gold at the end of a climate-driven rainbow.