The violence in Darfur is usually attributed to ethnic hatred. But global warming may be primarily to blame.

To truly understand the crisis in Darfur—and it has been profoundly misunderstood—you need to look back to the mid-1980s, before the violence between African and Arab began to simmer. Alex de Waal, now a program director at the Social Science Research Council, was there at that time, as a doctoral candidate doing anthropological fieldwork. Earlier this year, he told me a story that, he says, keeps coming back to him.

De Waal was traveling through the dry scrub of Darfur, studying indigenous reactions to the drought that gripped the region. In a herders’ camp near the desert’s border, he met with a bedridden and nearly blind Arab sheikh named Hilal Abdalla, who said he was noticing things he had never seen before: Sand blew into fertile land, and the rare rain washed away alluvial soil. Farmers who had once hosted his tribe and his camels were now blocking their migration; the land could no longer support both herder and farmer. Many tribesmen had lost their stock and scratched at millet farming on marginal plots.

The God-given order was broken, the sheikh said, and he feared the future. “The way the world was set up since time immemorial was being disturbed,” recalled de Waal. “And it was bewildering, depressing. And the consequences were terrible.”

In 2003, another scourge, now infamous, swept across Darfur. Janjaweed fighters in military uniforms, mounted on camels and horses, laid waste to the region. In a campaign of ethnic cleansing targeting Darfur’s blacks, the armed militiamen raped women, burned houses, and tortured and killed men of fighting age. Through whole swaths of the region, they left only smoke curling into the sky.

At their head was a 6-foot-4 Arab with an athletic build and a commanding presence. In a conflict the United States would later call genocide, he topped the State Department’s list of suspected war criminals. De Waal recognized him: His name was Musa Hilal, and he was the sheikh’s son.

The fighting in Darfur is usually described as racially motivated, pitting mounted Arabs against black rebels and civilians. But the fault lines have their origins in another distinction, between settled farmers and nomadic herders fighting over failing lands. The aggression of the warlord Musa Hilal can be traced to the fears of his father, and to how climate change shattered a way of life.
Until the rains began to fail, the sheikh’s people lived amicably with the settled farmers. The nomads were welcome passers-through, grazing their camels on the rocky hillsides that separated the fertile plots. The farmers would share their wells, and the herders would feed their stock on the leavings from the harvest. But with the drought, the farmers began to fence off their land—even fallow land—for fear it would be ruined by passing herds. A few tribes drifted elsewhere or took up farming, but the Arab herders stuck to their fraying livelihoods—nomadic herding was central to their cultural identity. (The distinction between “Arab” and “African” in Darfur is defined more by lifestyle than any physical difference: Arabs are generally herders, Africans typically farmers. The two groups are not racially distinct.)

The name *Darfur* means “Land of the Fur” (the largest single tribe of farmers in Darfur), but the vast region holds the tribal lands—the *dars*—of many tribes. In the late 1980s, landless and increasingly desperate Arabs began banding together to wrest their own *dar* from the black farmers. In 1987, they published a manifesto of racial superiority, and clashes broke out between Arabs and Fur. About 3,000 people, mostly Fur, were killed, and hundreds of villages and nomadic camps were burned before a peace agreement was signed in 1989. More fighting in the 1990s entrenched the divisions between Arabs and non-Arabs, pitting the Arab pastoralists against the Fur, Zaghawa, and Massaleit farmers. In these disputes, Sudan’s central government, seated in Khartoum, often supported the Arabs politically and sometimes provided arms.

In 2003, a rebellion began in Darfur—a reaction against Khartoum’s neglect and political marginalization of the region. And while the rebels initially sought a pan-ethnic front, the schism between those who opposed the government and those who supported it broke largely on ethnic lines. Even so, the conflict was rooted more in land envy than in ethnic hatred. “Interestingly, most of the Arab tribes who have their own land rights did not join the government’s fight,” says David Mozersky, the International Crisis Group’s project director for the Horn of Africa.

Why did Darfur’s lands fail? For much of the 1980s and ’90s, environmental degradation in Darfur and other parts of the Sahel (the semi-arid region just south of the Sahara) was blamed on the inhabitants. Dramatic declines in rainfall were attributed to mistreatment of the region’s vegetation. Improvident land use, it was argued, exposed more rock and sand, which absorb less sunlight than plants, instead reflecting it back toward space. This cooled the air near the surface, drawing clouds downward and reducing the chance of rain. “Africans were said to be doing it to themselves,” says Isaac Held, a senior scientist at the National Oceanic and Atmospheric Administration.

But by the time of the Darfur conflict four years ago, scientists had identified another cause. Climate scientists fed historical sea-surface temperatures into a variety of computer models of atmospheric change. Given the particular pattern of ocean-temperature changes worldwide, the models strongly predicted a disruption in African monsoons. “This was not caused by people cutting trees or overgrazing,” says Columbia University’s Alessandra Giannini, who led one of the analyses. The roots of the drying of Darfur, she and her colleagues had found, lay in changes to the global climate.

The extent to which those changes can be blamed on human activities remains an open question. Most scientists agree that greenhouse gases have warmed the tropical and southern oceans. But just how much artificial warming—as opposed to natural drifts in oceanic temperatures—contributed to the drought that struck Darfur is as debatable as the relationship between global warming and the
destruction of New Orleans. “Nobody can say that Hurricane Katrina was definitely caused by climate change,” says Peter Schwartz, the co-author of a 2003 Pentagon report on climate change and national security. “But we can say that climate change means more Katrinas. For any single storm, as with any single drought, it’s difficult to say. But we can say we’ll get more big storms and more severe droughts.”

With countries across the region and around the world suffering similar pressures, some see Darfur as a canary in the coal mine, a foretaste of climate-driven political chaos. Environmental degradation “creates very dry tinder,” says de Waal. “So if anyone wants to put a match to it, they can light it up.” Combustion might be particularly likely in areas where the political or social geography is already fragile. “Climate change is likely to cause tension all over the world,” says Idean Salehyan, a political scientist at the University of North Texas. Whether or not it sparks conflict, he says, depends on the strength, goodwill, and competence of local and national governments. (For more on the economic, political, and military tensions that global warming might create, see “Global Warming: What’s in It for You?” by Gregg Easterbrook, on page 52.)

In Darfur itself, recognizing climate change as a player in the conflict means seeking a solution beyond a political treaty between the rebels and the government. “One can see a way of de-escalating the war,” says de Waal. “But unless you get at the underlying roots, it’ll just spring back.” One goal of the internationally sponsored peace process is the eventual return of locals to their land. But what if there’s no longer enough decent land to go around?

To create a new status quo, one with the moral authority of the God-given order mourned by Musa Hilal’s father, local leaders would have to put aside old agreements and carve out new ones. Lifestyles and agricultural practices would likely need to change to accommodate many tribes on more fragile land. Widespread investment and education would be necessary.

But with Khartoum uncooperative, creating the conditions conducive to these sorts of solutions would probably require not only forceful foreign intervention but also a long-term stay. Environmental degradation means the local authorities have little or no surplus to use for tribal buy-offs, land deals, or coalition building. And fighting makes it nearly impossible to rethink land ownership or management. “The first thing you’ve got to do is stop the carnage and allow moderates to come to the fore,” says Thomas Homer-Dixon, a political scientist at the University of Toronto. Yet even once that happens, he admits, “these processes can take decades.”

Among the implications arising from the ecological origin of the Darfur crisis, the most significant may be moral. If the region’s collapse was in some part caused by the emissions from our factories, power plants, and automobiles, we bear some responsibility for the dying. “This changes us from the position of Good Samaritans—disinterested, uninvolved people who may feel a moral obligation—to a position where we, unconsciously and without malice, created the conditions that led to this crisis,” says Michael Byers, a political scientist at the University of British Columbia. “We cannot stand by and look at it as a situation of discretionary involvement. We are already involved.”