

HOW CLIMATE CHANGE IS FUELLING THE U.S. BORDER CRISIS

In the western highlands of Guatemala, the question is no longer whether someone will leave but when.

By Jonathan Blitzer
Photography by Mauricio Lima

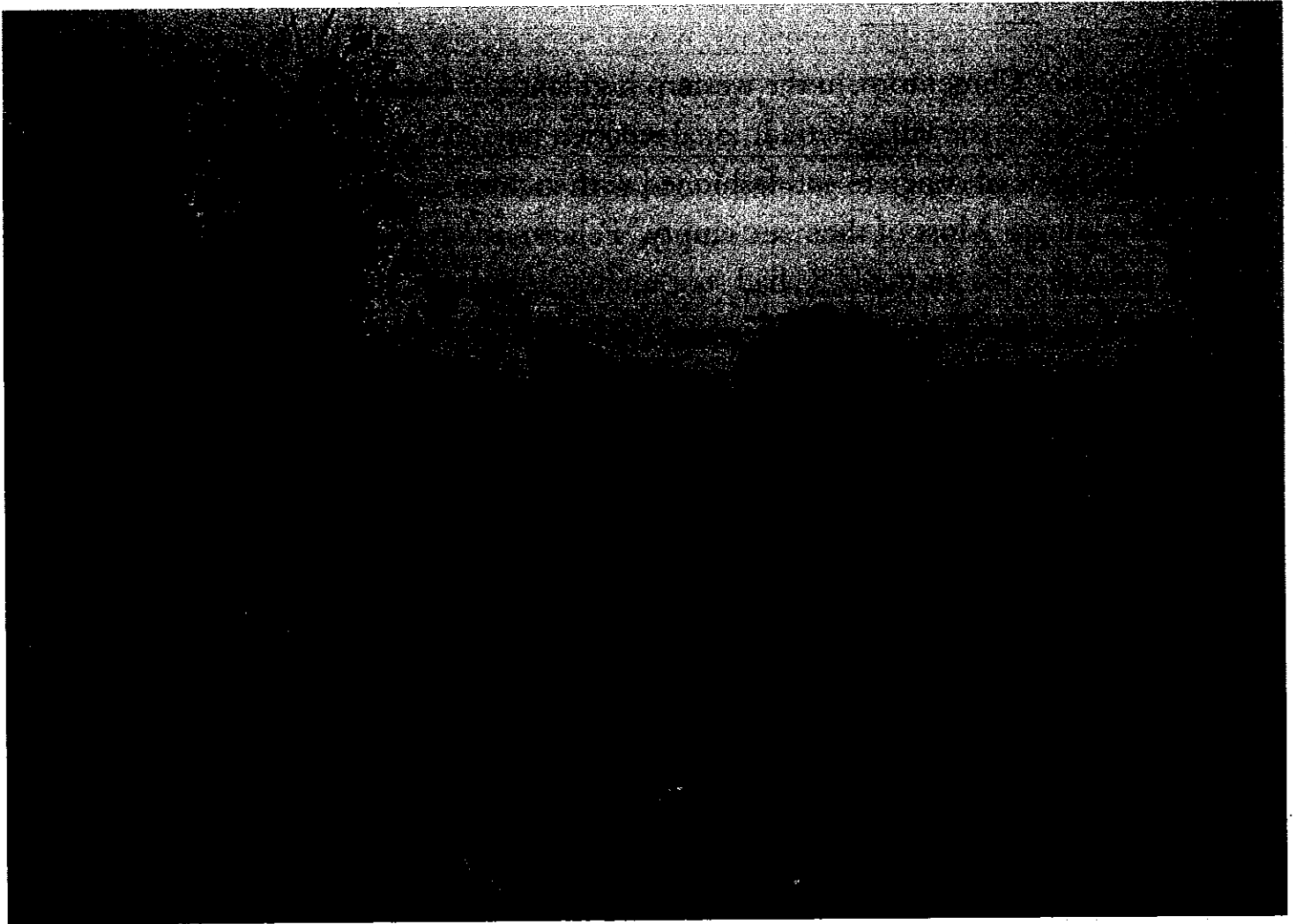
April 3, 2019

This is the first piece in a series on the forces driving migration from Guatemala. You can read the other installments [here](#) and [here](#).

In the center of Climentoro, in the western highlands of Guatemala, a dozen large white houses rise above the village's traditional wooden huts like giant monuments. The structures are made of concrete and fashioned with archways, colonnaded porches, and elaborate moldings. "Most of them are empty," Feliciano Pérez, a local farmer, told me. Their owners, who live in the U.S., had sent money home to build American-inspired houses for when they returned, but they never did. Pérez gestured to a three-story house topped with a faux-brick chimney. "No one lives there," he said. The family of twelve had migrated a few years ago, leaving the vacant construction behind. "*Vecinos fantasmas*," Pérez called them—ghost neighbors.

Pérez, who is thirty-five, is short and lean, with dark, weathered skin and metal caps on his front teeth. He wore a baseball cap mottled in camouflage and emblazoned with the words "Proud Marine Dad." "It was about six years ago that things started to change," he said. Climentoro had always been poor. Residents depended on the few crops that could survive at an elevation of more than nine thousand feet, harvesting maize to feed their families and selling potatoes for a small profit. But, Pérez said, the changing climate was wiping out the region's crops. "In the higher part of town, there have been more frosts than there used to be, and they kill an entire harvest in one fell swoop," he said. "In the lower part of Climentoro, there's been much less rain and new sorts of pests." He added, "Farmers have been abandoning their land."

In February, citing a “national-security crisis on our southern border,” Donald Trump declared a state of emergency, a measure that even members of Congress from his own party rejected. Three months earlier, with much less fanfare, thirteen federal agencies issued a landmark report about the damage wrought by climate change. In a sixteen-hundred-page analysis, government scientists described wildfires in California, the collapse of infrastructure in the South, crop shortages in the Midwest, and catastrophic flooding. The President publicly dismissed the findings. “As to whether or not it’s man-made and whether or not the effects that you’re talking about are there, I don’t see it,” he said. There was a deeper layer of denial in this, since overlooking these effects meant turning a blind eye to one of the major forces driving migration to the border. “There are always a lot of reasons why people migrate,” Yarsinio Palacios, an expert on forestry in Guatemala, told me. “Maybe a family member is sick. Maybe they are trying to make up for losses from the previous year. But in every situation, it has something to do with climate change.”



Outside the small village of Chicua, in the western highlands, in an area affected by extreme-weather events, Ilda Gonzales looks after her daughter.

The western highlands, which extend from Antigua to the Mexican border, cover roughly twenty per cent of Guatemala and contain a large share of the country's three hundred microclimates, ranging from dank, tropical locales near the Pacific Coast to the arid, alpine reaches of the department of Huehuetenango. The population in the highlands is mostly indigenous, and people's livelihoods are almost exclusively agrarian. The malnutrition rate, which hovers around sixty-five per cent, is among the highest in the Western Hemisphere. In 2014, a group of agronomists and scientists, working on an initiative called Climate, Nature, and Communities of Guatemala, produced a report that cautioned lawmakers about the region's susceptibility to a new threat. The highlands region, they wrote, "was the most vulnerable area in the country to climate change."

In the years before the report was published, three hurricanes had caused damage that cost more than the previous four decades' worth of public and private investment in the national economy. Extreme-weather events were just the most obvious climate-related calamities. There were increasingly wide fluctuations in temperature—unexpected surges in heat followed by morning frosts—and unpredictable rainfall. Almost half a year's worth of precipitation might fall in a single week, which would flood the soil and destroy crops. Grain and vegetable harvests that once produced enough food to feed a family for close to a year now lasted less than five months. "Inattention to these issues," the report's authors wrote, can drive "more migration to the United States" and "put at grave risk the already deteriorating viability of the country."

Guatemalan migration to the U.S., which had been steady since the late nineteen-seventies, has spiked in recent years. In 2018, fifty thousand families were apprehended at the border—twice as many as the year before. Within the first five months of the current fiscal year, sixty-six thousand families were arrested. The number of unaccompanied children has also increased: American authorities recorded twenty-two thousand children from Guatemala last year, more than those from El Salvador and Honduras combined. Much of this migration has come from the western highlands, which receives not only some of the highest rates of remittances per capita but also the greatest number of deportees. Of the ninety-four thousand immigrants deported to Guatemala from the U.S. and Mexico last year, about half came from this region.



In a tiny hamlet called Nuevo Belén, Federico Matías, a potato farmer, has lost thousands of quetzales on each harvest. His neighbor prepares the land for the coming crop.

One evening in early February, a thrum of activity in Climentoro brought the area's shifting demographics into view. The streets filled with residents running their final errands before dark. Children milled around a small wooden shack selling candy, and women, wrapped in embroidered dresses and carrying pots of water to their houses, stepped past wandering flocks of chickens and sheep. Almost everyone appeared to be either older than forty-five or younger than sixteen, and there was a conspicuous absence of young men. "They're gone," Pérez told me. More than half of the residents had migrated, he said, most of them to the U.S.

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The Flames Engulfing California

Pérez stayed in Climentoro to work on a project known as a “seed bank.” In a small shed, in a corner of the town, shelves of large containers lined the walls; inside each was a particular type of maize seed—black, yellow, red, white—from successive years going back more than a decade. The idea, Pérez told me, was to create a repository of extra seeds so that farmers wouldn’t go hungry when their crops were destroyed by an unexpected frost, a rain storm, or a new strain of fungus. The reserve supply helped limit the number of residents forced to migrate to feed their families, but it was an imperfect stopgap. Pérez recalled how, on a recent afternoon, a neighbor had approached him to ask for work. “You don’t have to pay me,” the man said. “Just give me breakfast and lunch.” A few weeks later, the neighbor and his family were gone. They left for the U.S., and Pérez hasn’t heard from them since.

On a bright morning in February, Palacios, who works for a local environmental group known as ASOCUCH, drove me in his truck up a rocky, twisting road to the village of Quilinco, about ten miles from Climentoro. A few small houses were tucked away on the side of a mountain, which was interspersed with thick patches of foliage and undulating strips of soil. Esvin Rocaél López, who is thirty-four years old and oversees Quilinco’s seed bank, was helping to shuck maize and rake the corn into metal pails. His burliness was

accentuated by a snugly fitting Dallas Cowboys T-shirt. Typically, maize is planted in April, prior to a period of extended rain; last year, however, both May and June were dry. “No one knows whether to plant their crops or not,” López told me. “When do you do it? If the rains don’t come at a predictable time, how do you know? These crops are for survival. If there aren’t crops, people leave.”

In recent years, U.S. immigration policy in Central America has largely relied on the idea that, in order to control the flow of immigrants heading north, the government should make it as painful as possible to cross the U.S.-Mexico border. “It’s always been about deterrence,” a former official at the Department of Homeland Security told me. “Unless you send a message, people will keep coming.” The Trump Administration began separating families at the border, in 2017, with the expectation that tougher enforcement would scare off other families from making the trip. When it didn’t, and the numbers continued to rise, the President attempted to ban asylum altogether and has since forced asylum seekers to wait in Mexico while their cases languish in American immigration courts. On Friday, Trump announced that he was cutting all aid to El Salvador, Honduras, and Guatemala, because the three countries “haven’t done a thing for us.”



Agustín Par, seventy-five, is in charge of a greenhouse of tree saplings outside the city of Totoncapán.



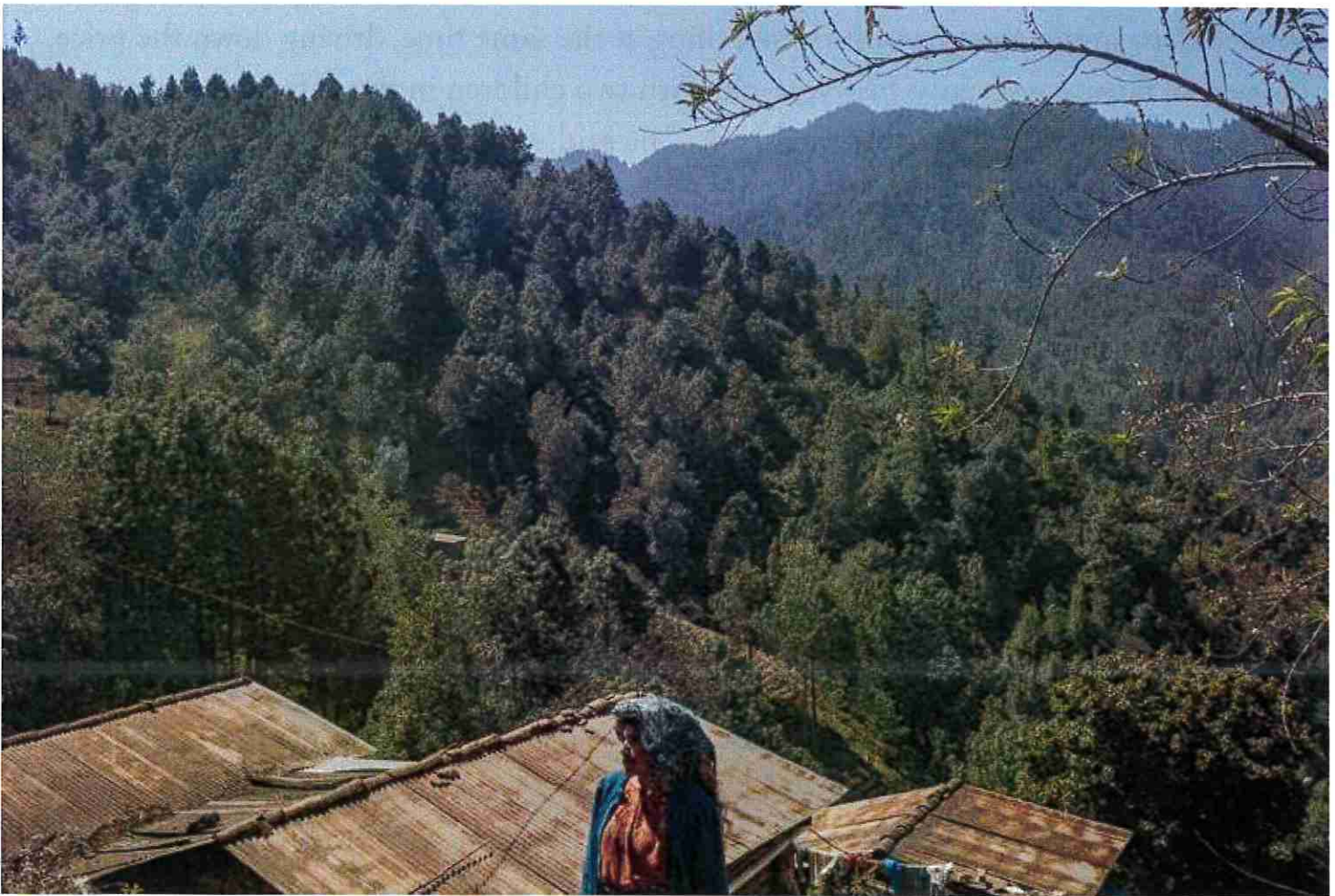
expands.

Even approaches that have accounted for the root causes of regional mass migration have underestimated the impact of climate change. The Obama Administration pledged roughly seven hundred and fifty million dollars to the northern triangle of Central America, an aid package known as the Alliance for Prosperity, which aimed to address mounting poverty, political corruption, and cycles of crime and violence. Little of that money dealt with issues of environmental sustainability, however, even though half of the Guatemalan workforce is in the agricultural sector. Sebastian Charchalac, an agronomist and environmental consultant who headed the Climate, Nature, and Communities project in the western highlands until 2017, told me, “It’s like the State Department is looking at the fire, but not the kindling.”

The day after Palacios and I visited Quilenco, I headed farther north with an agronomist named Silvia Monterroso, who worked for an organization in Huehuetenango called FundaEco. Monterroso has lived in the area for more than twenty years and had close relationships with a number of families along the road to the city of Todos Santos. En route, we passed a cemetery with a series of gravestones and sepulchres painted ornately

with American flags, an indication that the deceased had died as immigrants in the U.S. “It’s a symbol of thanks,” Monterroso told me. “The family of the person who died is thanking those who left, because if they hadn’t left for the U.S. and sent money home, the family would have nothing.”

In the distance, about ten thousand feet above sea level, was a belt of craggy peaks. At these heights, the impact of a changing climate was especially dire: increasing aridity was exacerbating an already limited water supply. By the side of a road near the hamlet of La Capellania, groups of women carted piles of laundry, in wheelbarrows and in baskets balanced on their heads, to small drainage ditches where they washed their families’ clothes with bars of soap, scrubbing the articles clean on flattened stones. They had set out with flashlights before dawn, wearing hats and jackets to withstand the freezing temperatures; the earlier the women arrived, the less likely it was that the water would be full of suds from prior use.



In Paraje León, a village of three hundred people, in a remote corner of Totoncapán, a woman stands outside her house, situated in front of a reforested mountain.

In another hamlet, Agua Alegre, fresh water for cooking and drinking was only available from a small communal tap. Some sixty families lived in the houses nearby, and long lines formed as the women filled plastic jugs to carry away. Five years ago, when local authorities started rationing the supply, residents were told that they could draw water at any time they wanted, but only on certain days of the week during the summer; three years ago, the schedule was limited to specific hours on consecutive days. Now water is only available on Wednesdays and Saturdays, between the hours of three in the afternoon and five in the morning. A middle-aged widow called Doña Gloria told me that she made about fifty trips to the tap on each of the days that water was available. Another resident, Ilda Ramirez, told me, "This isn't even the worst time of year. The worst months for water are March, April, and May," which were still weeks away.

The only crop that could grow reliably at these altitudes was potatoes. I visited the houses of four farmers; all of them were losing money. Changing weather patterns were forcing them to purchase fertilizers, extra compost, and pesticides. The growing season had also contracted, meaning most harvests were selling at the same time, driving down the price. One potato farmer, a seventy-five-year-old with two children in the U.S., had given up on trying to grow anything. "*La papa no da papa*," he said, making a pun on the word for potato, which is slang for money. The son of another farmer had left for the U.S. three months earlier, taking his nine-year-old daughter with him. "How else was he going to get across the border?" the father said. Their neighbor had also emigrated, but he'd opted to make the trip without his children and was now detained in Texas. "The ticket is travelling with a kid," he added. "They try to cross the border with their children because they know they'll get released when they seek asylum."

Federico Matías, a potato farmer in a tiny hamlet called Nuevo Belén, wore the traditional dress of the area: pink striped pants, a stiff purple scarf, and a straw sun hat. He was Mam, an indigenous group of some six hundred thousand people, and learned Spanish working alongside Mexican day laborers in the U.S. He had migrated three times as a younger man, back when it was easier to travel across the border. Now, at forty-nine, he lived in the mountains with his wife, his father, and his nineteen-year-old daughter. Water and firewood were so scarce that the family only bathed once a week, in an outdoor structure made of stone. Matías, who has been losing thousands of quetzales on each potato harvest, reeled off a litany of mounting expenses. "Thankfully, I have my family members in the United States," he said. "They give us money to eat." His four other children, all of them between the ages of twenty-one and thirty, live in California. Late last year, his nineteen-

year-old daughter left for the U.S. to join them, but was arrested and later deported. She told her father, “I got scared that when I came back you guys wouldn’t be here.”



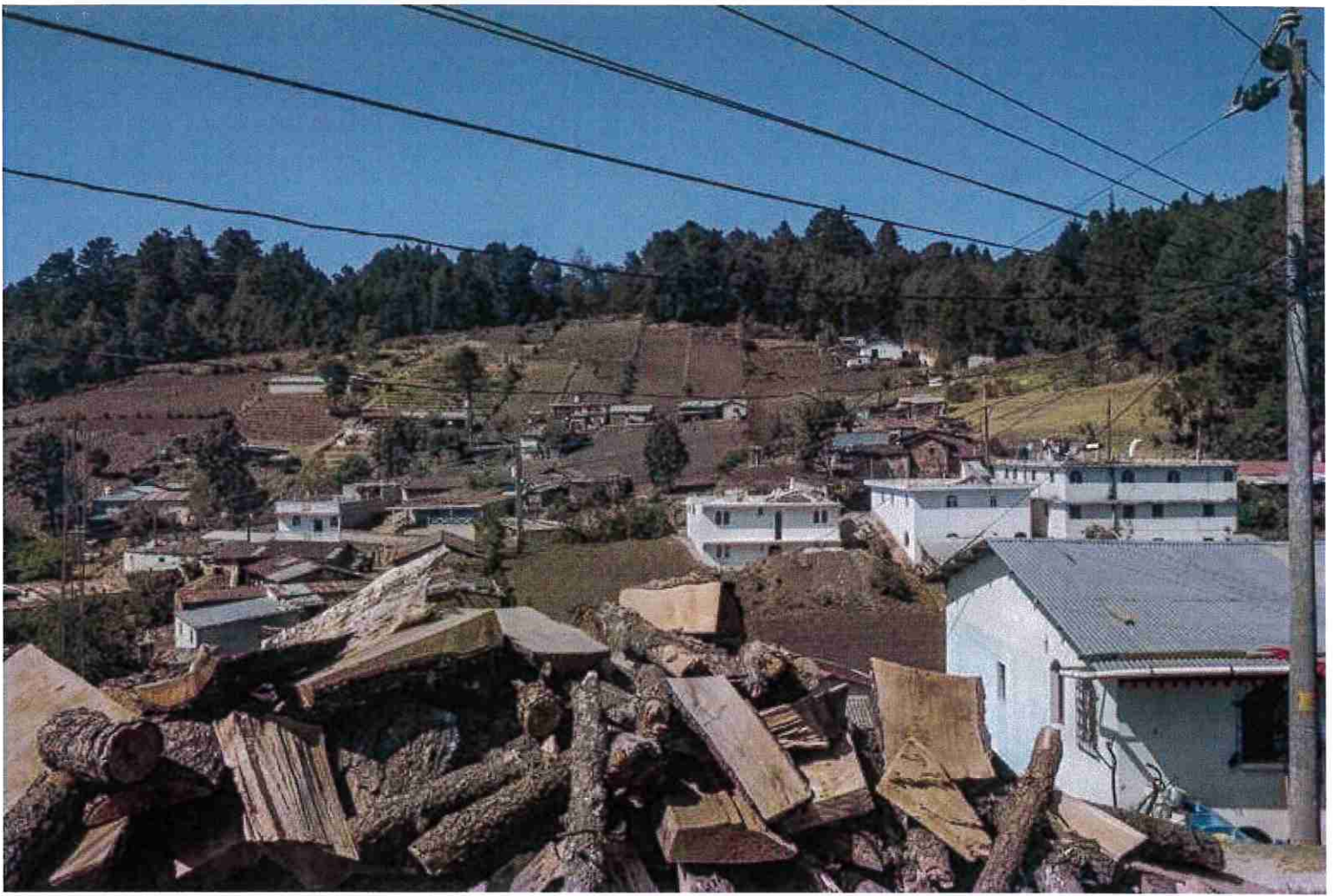
Residents of Paraje León, Irma Jiménez and her husband depended on maize as their main source of food and sold other vegetables at markets. “We kept losing crops,” Jiménez said. “There wasn’t money, and so we started to have to cut down trees.”

Paraje León, a village of three hundred people, in a remote corner of the highlands department of Totonicapán, is on the edge of an expanding swath of Central America that’s known as the dry corridor. The area begins in Panama and snakes north through Costa Rica, Nicaragua, El Salvador, Honduras, Guatemala, and parts of southern Mexico. Home to some ten million people, it is defined by its susceptibility to droughts, tropical storms, landslides, and flash floods; more than half of the residents in the region are subsistence farmers, and at least two million of them have gone hungry in the last decade because of extreme weather. The south of Guatemala has suffered spectacularly in recent years, forcing the federal government, last December, to offer food stamps to families who lost more than half of their land to a prolonged drought in the towns along the Honduran border. As climate change has worsened, the dry corridor has extended into the western

part of the country—scientists describe Totonicapán as the most vulnerable department in the western highlands—and efforts have been made to anticipate and mitigate further damage.

One afternoon in November, 2015, a delegation from the Asociación de Cooperación para el Desarrollo Rural de Occidente (C.D.R.O.) visited the home of the mayor of Paraje León, an affable seventy-one-year-old named Domingo de León. Through a national initiative financed by the U.S. government, the C.D.R.O. had received a contract to launch a pilot project designed to help villages respond to climate change. The total grant amounted to a hundred and ninety thousand dollars over a three-year period, enough for trained agronomists to show the community how to diversify their crops, conserve water, and reforest some of the surrounding areas. Annual droughts that used to last about four weeks were beginning to drag on for months in Paraje León, where most of the residents made their money cutting down trees to sell as firewood. “We wanted them to try growing plants instead,” Antonia Xuruc, who directed the project, told me. “We had to be careful not to make it seem like we were going in to try to change their life style.”

De León, who wears a cowboy hat and boots, with a cell phone dangling from a lanyard around his neck, was suspicious at first. During elections, campaigning politicians make the rounds in rural parts of the country, disbursing money and promises in exchange for loyalty at the ballot box. Residents were also wary of outside groups trying to strip the town of its timber. “I don’t want us to be taken advantage of,” de León said. When the residents of Paraje León decided to hold a general assembly to vote on the proposal, the result was a deadlock, but a group of about twenty people eventually agreed to move forward. “When the program started, the names we took down were all men,” Loyda Socop, another staffer at the C.D.R.O., said. “But it turned out that it was mostly women who were behind it. They were the ones who wanted to give this a try.”



The practice of cutting trees to sell for firewood, which was growing increasingly common in the area, has steadily deforested the region around Totonicapán.



A worker burns the land as preparation for the next onion harvest, near the city of Quetzaltenango. With less tree cover, the effects of oscillating temperatures have worsened, making it more difficult for farmers to recoup losses.

At the time, Irma Jiménez, then a thirty-one-year-old mother of three, was trying to persuade her husband not to leave for the U.S. Like many families in the western highlands, Jiménez and her husband depended on maize as their main source of food and sold other vegetables at markets in the surrounding villages. “We kept losing crops,” Jiménez said. “There wasn’t money, and so we started to have to cut down trees.” The practice, which was growing increasingly common in the area, has steadily deforested the mountainside around Paraje León. With less tree cover, the effects of oscillating temperatures have worsened, making it even more difficult for local farmers to recoup the losses in their harvests. “My husband told me he had to go north, that it was the only way,” Jiménez told me. “But I said to him, ‘Don’t go. There’s money here. We just have to figure out how to earn it.’”

Jiménez has dark hair, an angular, youthful face, and ramrod posture. Her house, on a sloping plot of land, consists of a cluster of rooms with dirt floors and doorless entryways. The area’s soil is intermittently rocky, with broad patches of thick vegetation and

coniferous trees. The agronomists with the C.D.R.O. showed Jiménez how to arrange her crops to take advantage of alternating stretches of sun and shade. Tree cover helped modulate temperature and absorb rainfall, and certain plants could protect the harvest from morning frosts. The C.D.R.O. also provided plastic receptacles to capture rain water and condensation, as well as seeds for additional crops. Rising humidity in the region meant, among other things, that Jiménez could plant coffee and citrus at higher altitudes. Charchalac, who oversaw the Climate, Nature, and Communities program in the highlands, told me that, three years earlier, it would have been impossible to find these types of crops in a place like Paraje León. “The coffee and citrus are a clear sign of climate change,” he said. “At the same time, it can be an opportunity. By planting so many diverse things, you can create your own microclimates.”

At the end of the first year, Jiménez and her family had grown enough maize to last them most of the following year, saving them hundreds of quetzales in purchases each month. The C.D.R.O. also set up a device in Totonicapán that measured wind speed, barometric pressure, humidity, and a host of other indicators that could help predict weather events that imperilled crops. In the span of a single month, Jiménez received a pair of text messages from the service, one warning about a coming frost and another alerting her to a stretch of unseasonable heat and humidity. “I planned accordingly,” she told me. “It saved my crops. I warned my neighbors, too, but some of them who weren’t involved in the program or didn’t believe me didn’t make their own preparations, and they lost an entire year’s worth of food.”

Women collect water in the town of Agua Alegre, in the arid, alpine reaches of the department of Huehuetenango.

Within three years, Jiménez and her husband no longer needed to cut firewood to cover their expenses. They sold tomatoes, vegetables, and beans to buyers at nearby markets and also some of their fruit—apples, peaches, citruses—to residents in Paraje León. Others, including de León, the mayor, were experimenting with their plots as well. A forestry expert at the C.D.R.O. helped a group of volunteers create a nursery for tree saplings, and a local board formed to monitor their progress. Before long, they were planting in denuded stretches of the mountainside.

Jiménez’s brother-in-law worked in a restaurant in Mississippi, and the remittances that he sent home were an irrefutable testament to the benefits of leaving Paraje León. Still, for the first time, she and her husband could make an argument for staying. Jiménez managed to

convince her sister, who lived in a neighboring village, not to migrate. Her father-in-law had tried, and failed, to reach the United States several years before, and he'd since been saddled with a massive debt. When he broached the idea of selling his land to repay the bank, Jiménez's husband told him that the land was too valuable to give up. "The more success we had," Socop, of the C.D.R.O., told me, "the less attractive it was becoming for people to leave town."

In July, 2017, the Trump Administration ended funding for the Climate, Nature, and Communities program that covered the project in Paraje León. Although the President had been explicit in questioning the scientific consensus on climate change, there were no official announcements or press conferences; the funding simply petered out. "The reasoning wasn't an official thing," one N.G.O. director, who preferred to remain anonymous, told me. "Those who were associated with the U.S. Embassy had a way of communicating it. It was something that came up informally, that the climate-change work would no longer be a thing." Advocates began noticing subtle changes in the language adopted by U.S.A.I.D. In grant proposals and project descriptions, "climate change" was replaced with phrases such as "resilience to environmental impacts."

Sebastian Charchalac talks to villagers in a field in Paraje León. Trained agronomists, through grants, have been instructing rural communities in diversifying crops, conserving water, and reforesting some of the surrounding areas.

The residents of Paraje León, meanwhile, knew little about the new Presidential Administration in the U.S. but noticed changes in the community. Jiménez told me that the text-message alerts about weather patterns ceased. ("I started to just look at the sky and clouds to predict if there would be a bad frost," she said.) A representative from the C.D.R.O. continued to visit the village, but less frequently, and the seed supply diminished. Even so, the people of Paraje León had been fortunate to a degree: their village was one of only a few that had the chance to join the regional initiative before the funding disappeared.

"The little bit of money we got here made a huge impact," Charchalac told me, during my first visit to Paraje León. We were touring a greenhouse built by Marcos de León, the mayor's son. There were patches of tomatoes, cabbage, and other vegetables; flowers and vines coiled around wooden stakes pitched along the perimeter. School had just let out for the day, and groups of children bobbed along the road outside, heading home to have lunch

and then help their families in the fields. Their teachers, who are driven into town each day from the nearest city, roughly an hour away, were piling into a truck to begin the trip back.

Charchalac had not been to the village for almost two years, and his excitement at seeing everyone was mixed with a bitter sense of what could have been. "We had big plans," he said. "We were going to do what we did in Paraje León to ten other communities in the department." Last year, the Guatemalan government officially added five municipalities of Totonicapán to the list of locales classified as being part of the dry corridor, which makes them eligible for emergency-relief funding. One of them, called Santa María Chiquimula, includes Paraje León.

Graves painted with the U.S. flag, in the cemetery of Todos Santos Cuchumatán, indicate that the deceased died as immigrants in the U.S. The families paint the flags as a symbol of thanks for money that their loved ones sent home from the U.S.

In most of the western highlands, the question is no longer whether someone will emigrate but when. "Extreme poverty may be the primary reason people leave," Edwin Castellanos, a climate scientist at the Universidad del Valle, told me. "But climate change is intensifying all the existing factors." Extended periods of heat and dryness, known as *canículas*, have increased in four of the last seven years, across the country. Yet even measurements of annual rainfall, which is projected to decline over the next fifty years, obscure the effects of its growing irregularity on agriculture. Farming, Castellanos has said, is "a trial-and-error exercise for the modification of the conditions of sowing and harvesting times in the face of a variable environment." Climate change is outpacing the ability of growers to adapt. Based on models of shifting weather patterns in the region, Castellanos told me, "what was supposed to be happening fifty years from now is our present reality."

San Juan Ixcoy is a small city of twenty thousand people, tucked away in a valley of the Cuchumatán mountains, some sixty-five miles from the Mexican border. It is a lively place, with a bustling downtown full of small shops and semi-paved roads lined with trees; ramshackle houses fan out from a central plaza, designed in the Spanish Colonial style. On a warm afternoon last month, I visited a local school, a single-story building with a pitched roof that had served as a military garrison during the country's civil war. One of the teachers, Rafael Rafael, who was twenty-five, voluble, and wearing a white polo shirt, told me that many of his students had recently left for the U.S. "In a class of twenty-five

students, at least five drop out every term to migrate with their families,” Rafael said. “I don’t like it, but it’s hard to blame them.”

Across the country, the dropout rate nearly doubled last year. Each semester, Rafael expected to have about two months of classes before he started to lose students. At another school where he worked, in nearby San Pedro Soloma, matriculation declined by a hundred students every year since 2015, from five hundred and thirty to a hundred and eighty. “All of this is because of immigration,” he told me.

In Paraje León, a mother walks home with her baby at dusk. This remote corner of the highlands department of Totonicapán is on the edge of an expanding swath of Central America’s dry corridor.

As we spoke, a group of students, still wearing their school uniforms, were playing soccer on a grassy pitch next to the schoolhouse. Across the street, a few men were using rakes to churn the soil in preparation for harvest time. “Those who are still here take turns working on the properties,” Rafael told me, motioning toward the men. “We’re entering maize-and-bean season. But there aren’t enough people here to work the fields.” Rafael’s own brother had left for the U.S. two months earlier, taking his eight-year-old out of school so that they could travel together. “I’m not going to migrate” Rafael said. “For the moment, I have a stable job, at least for as long as there are enough students around for classes.”

A little over a month later, I received a phone call from him. It was nearly midnight on a Sunday, and I was at home, in New York. He told me that he had something to share, though his voice caught as he began. “I’m going to be leaving soon, too,” he said. He sounded dejected and was reluctant to elaborate. He still had his job at the school, he said, but his salary couldn’t cover his family’s living expenses. His wife and their six-month-old baby, he added, would remain behind. “There are things you can do there”—in the U.S.—“that you just can’t do here,” he said. I asked him what he had in mind, but he demurred, mumbling something vague about work. He mentioned his brother, whose trip to the U.S. had shown Rafael that there was more he could do for his family if he were in the U.S. He didn’t seem fully convinced. Then, a note of certitude crept into his voice, and his words quickened. “I’ll call you when I make it there.”

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