

“The Great Climate Migration” by Abrahm Lustgarten**Part 4:**

Delmira de Jesús Cortez Barrera moved to the outskirts of San Salvador six years ago, after her life in the rural western edge of El Salvador — just 90 miles from Jorge A.’s village in Guatemala — collapsed. Now she sells pupusas on a block not far from where teenagers stand guard for the Mara Salvatrucha gang. When we met last summer, she was working six days a week, earning \$7 a day, or less than \$200 a month. She relied on the kindness of her boss, who gave her some free meals at work. But everything else for her and her infant son she had to provide herself. Cortez commuted before dawn from San Marcos, where she lived with her sister in a cheap room off a pedestrian alleyway. But her apartment still cost \$65 each month. And she sent \$75 home to her parents each month — enough for beans and cheese to feed the two daughters she left with them. “We’re going backward,” she said.

Her story — that of an uneducated, unskilled woman from farm roots who can’t find high-paying work in the city and falls deeper into poverty — is a familiar one, the classic pattern of in-country migration all around the world. San Salvador, meanwhile, has become notorious as one of the most dangerous cities in the world, a capital in which gangs have long controlled everything from the majestic colonial streets of its downtown squares to the offices of the politicians who reside in them. It is against this backdrop of war, violence, hurricanes and poverty that one in six of El Salvador’s citizens have fled for the United States over the course of the last few decades, with some 90,000 Salvadorans apprehended at the U.S. border in 2019 alone.

Cortez was born about a mile from the Guatemalan border, in El Paste, a small town nestled on the side of a volcano. Her family were jornaleros — day laborers who farmed on the big maize and bean plantations in the area — and they rented a two-room mud-walled hut with a dirt floor, raising nine children there. Around 2012, a coffee blight worsened by climate change virtually wiped out El Salvador’s crop, slashing harvests by 70 percent. Then drought and unpredictable storms led to what a U.N.-affiliated food-security organization describes as “a progressive deterioration” of Salvadorans’ livelihoods.

That’s when Cortez decided to leave. She married and found work as a brick maker at a factory in the nearby city of Ahuachapán. But the gangs found easy prey in vulnerable farmers and spread into the Salvadoran countryside and the outlying cities, where they made a living by extorting local shopkeepers. Here we can see how climate change can act as what Defense Department officials sometimes refer to as a “threat multiplier.” For Cortez, the threat could not have been more dire. After two years in Ahuachapán, a gang-connected hit man knocked on Cortez’s door and took her husband, whose ex-girlfriend was a gang member, executing him in broad daylight a block away.

In other times, Cortez might have gone back home. But there was no work in El Paste, and no water. So she sent her children there and went to San Salvador instead.

For all the ways in which human migration is hard to predict, one trend is clear: Around the world, as people run short of food and abandon farms, they gravitate toward cities, which quickly grow overcrowded. It's in these cities, where waves of new people stretch infrastructure, resources and services to their limits, that migration researchers warn that the most severe strains on society will unfold. Food has to be imported — stretching reliance on already-struggling farms and increasing its cost. People will congregate in slums, with little water or electricity, where they are more vulnerable to flooding or other disasters. The slums fuel extremism and chaos.

It is a shift that is already well underway, which is why the World Bank has raised concerns about the mind-boggling influx of people into East African cities like Addis Ababa, in Ethiopia, where the population has doubled since 2000 and is expected to nearly double again by 2035. In Mexico, the World Bank estimates, as many as 1.7 million people may migrate away from the hottest and driest regions, many of them winding up in Mexico City.

But like so much of the rest of the climate story, the urbanization trend is also just the beginning. Right now a little more than half of the planet's population lives in urban areas, but by the middle of the century, the World Bank estimates, 67 percent will. In just a decade, four out of every 10 urban residents — two billion people around the world — will live in slums. The International Committee of the Red Cross warns that 96 percent of future urban growth will happen in some of the world's most fragile cities, which already face a heightened risk of conflict and have governments that are least capable of dealing with it. Some cities will be unable to sustain the influx. In the case of Addis Ababa, the World Bank suggests that in the second half of the century, many of the people who fled there will be forced to move again, leaving that city as local agriculture around it dries up.

Our modeling effort is premised on the notion that in these cities as they exist now, we can see the seeds of their future growth. Relationships between quality-of-life factors like household income in specific neighborhoods, education levels, employment rates and so forth — and how each of those changed in response to climate — would reveal patterns that could be projected into the future. As moisture raises the grain in a slab of wood, the information just needed to be elicited.

Under every scientific forecast for global climate change, El Salvador gets hotter and drier, and our model was in accord with what other researchers said was likely: San Salvador will continue to grow as a result, putting still more people in its dense outer rings. What happens in its farm country, though, is more dependent on which climate and development policies governments to

the north choose to deploy in dealing with the warming planet. High emissions, with few global policy changes and relatively open borders, will drive rural El Salvador — just like rural Guatemala — to empty out, even as its cities grow.

Should the United States and other wealthy countries change the trajectory of global policy, though — by, say, investing in climate mitigation efforts at home but also hardening their borders — they would trigger a complex cascade of repercussions farther south, according to the model. Central American and Mexican cities continue to grow, albeit less quickly, but their overall wealth and development slows drastically, most likely concentrating poverty further. Far more people also remain in the countryside for lack of opportunity, becoming trapped and more desperate than ever.

People move to cities because they can seem like a refuge, offering the facade of order — tall buildings and government presence — and the mirage of wealth. I met several men who left their farm fields seeking extremely dangerous work as security guards in San Salvador and Guatemala City. I met a 10-year-old boy washing car windows at a stoplight, convinced that the coins in his jar would help buy back his parents' farmland. Cities offer choices, and a sense that you can control your destiny.

These same cities, though, can just as easily become traps, as the challenges that go along with rapid urbanization quickly pile up. Since 2000, San Salvador's population has ballooned by more than a third as it has absorbed migrants from the rural areas, even as tens of thousands of people continue to leave the country and migrate north. By midcentury, the U.N. estimates that El Salvador — which has 6.4 million people and is the most densely populated country in Central America — will be 86 percent urban.

Our models show that much of the growth will be concentrated in the city's slumlike suburbs, places like San Marcos, where people live in thousands of ramshackle structures, many without electricity or fresh water. In these places, even before the pandemic and its fallout, good jobs were difficult to find, poverty was deepening and crime was increasing. Domestic abuse has also been rising, and declining sanitary conditions threaten more disease. As society weakens, the gangs — whose members outnumber the police in parts of El Salvador by an estimated three to one — extort and recruit. They have made San Salvador's murder rate one of the highest in the world.

Cortez hoped to escape the violence, but she couldn't. The gangs run through her apartment block, stealing televisions and collecting protection payments. She had recently witnessed a murder inside a medical clinic where she was delivering food. The lack of security, the lack of affordable housing, the lack of child care, the lack of sustenance — all influence the evolution of complex urban systems under migratory pressure, and our model considers such stresses by incorporating data on crime, governance and health care. They are signposts for what is to come.

A week before our meeting last year, Cortez had resolved to make the trip to the United States at almost any cost. For months she had “felt like going far away,” but moving home was out of the question. “The climate has changed, and it has provoked us,” she said, adding that it had scarcely rained in three years. “My dad, last year, he just gave up.”