ADDIS ABABA, Ethiopia -- Chala Ahmed, 26, hit the jackpot eight years ago when he won the U.S. visa lottery in the bustling eastern Ethiopian town of Haramaya.

His first thought was that he would build his mother a big, beautiful house. His next thought was that the new home, painted a rosy pink behind a high white gate, should be erected on the shore of Lake Haramaya, the huge stretch of placid water that gave his hometown its name.

It took Ahmed almost eight years of long-haul trucking across America before the house was completed. He sent money home regularly and relatives reported back on progress.

Ahmed had heard the lake was shrinking, that the shore he knew was no longer at the lake's edge, that the waves retreated a little farther each year. His family tried to warn him, but Ahmed was thousands of miles away and his memories held firm despite the disturbing reports.

He came home to Haramaya for an extended visit in January. When he arrived, it was night, dark and quiet. Ahmed woke the next morning and stepped out into early sunlight. Staring across a vast empty field, he watched farmers herd cattle and goats through the empty lake bed that was once Lake Haramaya. Then he sat down on a dusty patch of grass and cried.

"When I left, the lake was full. There were resort houses and all of the local marriages happened along its banks," Ahmed said. "Now the lake has become a field."

The chat is always greener

Other Ethiopian lakes may be headed for similar fates. Like Haramaya, lakes in the Rift Valley such as Awasa, Abiyata and Ziway are reporting shrinkage. The forces converging against these lakes read like a nightmare laundry list of 21st century environmental ills.

"There's the erosion, population increases, irresponsible local farming practices and industrial overuse of the lake," said Bushra Mohammed Reshid of the Harar Water and Sanitation Department. Drought, climate change and government lack of interest also make the list.

Farmers get a lot of the blame around these parts for having abused the nearby lakes. They're accused of having relentlessly pumped water from Haramaya, until the lake, a closed catchment already suffering from increasing temperatures and erratic rainfall, drained like a bathtub with the plug pulled out.

Their reputation was further sullied, especially among nearby Harar's 91,000 residents, when a group of rogue farmers was accused of sabotaging water pipes serving as the city's sole water source, breaking connections and siphoning off the escaping water for irrigation. A few of the farmers are still in jail for the offense.

But farmers have been working in this region for generations, and while population growth in both rural and urban areas has strained delicate water resources, a little bitter leaf with thirsty roots deserves at least some of the blame for the disappearance of Haramaya.

Chat, a mild stimulant chewed by people throughout the Horn of Africa, the Arabian Peninsula and by diaspora populations from both regions, is the only crop you'll see in the hilly farmland here.

This area is famous for its ability to grow quality chat for export, and the midsize leafy bush sprouts from distant terraces, bounces off the back of careening delivery trucks, and hangs in moistened plastic bags from the hands of half the people on the street. There's even a daily flight carrying fresh chat -- thought to lose its potency after 48 hours -- to chat-hungry neighbors such as Somalia, Egypt, Kenya and Tanzania.

In many ways, chat has been good to the area. The local economy has grown alongside the lucrative cash crop.

But chat is a mixed blessing. Most problematic are its long, anchored roots, which require concentrated watering. The demand is intensified by chat's ability, with heavy irrigation, to produce multiple harvests a year. International chat prices skyrocket during the dry season, meaning that the motivation among farmers for water use is strongest when the land is least capable of providing.

"You see, in order to grow chat, in order to irrigate chat, you need to extract lots and lots of water, and water is free," says Tena Alamirew, academic and research vice president of Haramaya University, which sits beside the empty lake.

Widowed by the water

Jamal Hussein, 60, worries that the whole region is being punished for its sins. Hussein, a fisherman on Lake Haramaya for 42 years, is heartbroken and looking for answers.

Extreme weather has been on the march. A massive flash flood that killed hundreds in nearby Dire Dawa two years ago, rivers that once flowed year-round slowly turning seasonal, and the steady dwindling of the area's many lakes would have anyone looking for supernatural explanations.

"The rains have decreased overall, and the amount of water entering into the lake was less. And the wind is dry now, so much drier than before," Hussein says.

Biologists have confirmed Hussein's meteorological observations, and studies have shown a trend toward warming temperatures and sporadic rainfall that no longer follows traditional rainy season patterns.

"I don't know about overall rain throughout the country," says Brook Lemma, a biologist and freshwater ecology expert who spent almost two decades studying the disappearance of Lake Haramaya. "But I know this -- the temperatures are definitely rising and the rain patterns are shifting. The rains are not normal anymore."

"So much was lost," Lemma says. "I used to see lots of cormorants, and there were ducks and small birds for bird watching, not to mention the many types of grasses and beautiful reeds. They're all gone now."

Blame it on the rain

Droughts, disappearing lakes and rivers running dry implicate global warming in the minds of many, and reports from the Intergovernmental Panel on Climate Change suggest that sub-Saharan Africa will be hit hard by shifting weather patterns in coming decades.

But the specter of climate change looms as a controversial issue here. Some believe the climate change threat is overstated and that conservation should focus on the human activities that are directly affecting the environment. Others withhold judgment for now, considering the topic too new and the research yet to be done. Still others suggest that Ethiopia is experiencing some of the first effects of climate change and that the country should prepare for more to come.

Whatever the causes, it remains to be seen if the region or the country has fully absorbed the new environmental realities that Lake Haramaya's death foretells.

Wealthy farmers in Haramaya still pull in good chat money, irrigating their crops via gas-powered pump extraction from underneath the lake. Tankers sent from the government of Iran and international aid organizations bring daily shipments of water to community taps and tourist hotels in Harar. The emergency pump system is slated to give out just as a government project that will pipe water from Dire Dawa's aquifer to Harar is completed.

"Nobody is trying to work out a national water plan, not for the Haramaya region, not for the country," says Lemma, who is concerned that current plans don't address larger issues of water management and conservation. "Everybody is talking about what they call 'development.' We all want development, but at what expense?"

A lake, once almost 10 miles around and 25 feet deep at its center, not to mention its accompanying ecosystem and economy, has vanished.

More stand to follow. As governments face pressures from growing populations, shifting weather patterns and intensifying agricultural, industrial and consumptive endeavors, one wonders what the environmental future holds for towns across the global such as Haramaya.

As for Chala Ahmed, he's happy with his family's new home but eager to get back to the United States. He has no desire to resettle in Ethiopia. As a long-distance trucker, he's visited every state in the union save Alaska and Hawaii, and he's thinking he'd like to move to Seattle. There's a large Ethiopian community, and he thinks it's a beautiful place.

"Lake Haramaya used to be so big it was like the ocean in Seattle," Ahmed said.

"I never thought we'd lose Haramaya because it was a natural thing. You know there is nothing in the world like a natural source of water."