CentrAm coffee growers struggle to adapt to climate change

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Coffee producer Adrian Hernandez inspects the crop on his farm Altamira, in Barva Heredia, Heredia, on August 25, 2015

Adrian Hernandez says he can't remember a year as dry as 2015, which has nearly cost him his farm and turned him from a climate change skeptic into a true believer.

Hernandez, who runs a coffee plantation in northern Costa Rica, says he

is just barely scraping by after tripling the amount of fungicide he uses, paying high irrigation bills and still harvesting just a meager crop from his desiccated plants.

"I didn't used to believe much in climate change, but now it's plain to see. Never in 23 years of running this farm have we had a winter without rain," said Hernandez at his plantation in Barva de Heredia, just north of the Costa Rican capital.

Ironically, when the drought first began, it solved one of his problems: the outbreak of coffee rust that has devastated Central American crops for the past three years—another sign of climate change, according to experts.

Coffee rust, a fungus, thrives in hot, damp conditions, so Hernandez said he was initially happy to get some help from the weather in fighting it.

But the rains didn't just come late. They never came at all.

The drought lasted so long it threatened to wipe out his crop, leaving him with fields full of gaunt, withered plants.

"It's hard to stay in business. We've had to increase our fungicide treatments from one to three a year. And if it doesn't rain, we pay high irrigation bills. We end up just barely breaking even," said Hernandez, a 60-something man with salt-and-pepper hair.

New normal

Central America is flanked by both the Atlantic and Pacific Oceans, and bears the brunt of the weather phenomena associated with both: tropical depressions, hurricanes, droughts and torrential rains.

As those phenomena become more extreme, it is taking a heavy toll on agriculture, said Rocio Cordoba, a biologist who heads the regional climate change program at the International Union for Conservation of Nature (IUCN).

A coffee plant infected with the fungus roya, which began to spread in 2012 due to a lack of preventive measures and the effects of climate change

"We see signs that the climate is changing," she told AFP.

"Before when farmers planted their crops, they did it in line with the months of the year. That alignment doesn't exist anymore. The May rains arrive later, and the dry spells don't match the periods we're used to anymore."

The key word in the new normal is "adaptation," she said—starting with sound water management.

Millions of Central American farmers were already facing the devastating effects of coffee rust, which broke out in 2012. Since then, 60 percent of the region's plantations have been hit, particularly on the Pacific coast.

Then came the drought, and things got even worse.

"Because of the aggressiveness of the rust and now the drought, a lot of coffee growers have abandoned their plantations. Some are thinking of selling their land to be parceled up," said Francisco Ayala, a coffee grower from the Tecapa Chinameca mountain range in eastern El Salvador.

Major investment

Coffee bean prices have meanwhile been slumping along with those of many other commodities—hitting their lowest level in 19 months in August, according to the International Coffee Association.

In Central America, which produces about nine percent of the world's coffee, farmers struggle to find the money to invest in adapting to climate change.

Experts say the new conditions require more intensive care of the plants—pruning, weeding, fungicides and other treatments—which is of course more expensive.

"We have to monitor and renew our crops to have plants that are primed to produce. We haven't paid enough attention to that," said agricultural engineer Ricardo Rodriguez of the Costa Rican Coffee Institute.

Growers are increasingly trying out new, more resistant varieties like Ovata from Brazil and Geisha from Ethiopia.

But it's a slow and expensive process to switch.

The industry employs some two million people in the region, and governments have launched various programs to offer financial and technical assistance.

"That helps," said Rodriguez.

But governments and international organizations need to do more, he said.

"We need to understand that to deal with climate change, coffee plantations will have to be managed very differently than they have been in the past."

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