The Washington Post

Americas

The price of ‘progress’ in the Amazon

Proponents, including Brazil’s president, hail development as an irresistible opportunity. Scientists warn that the area is on the precipice of an environmental crisis.

A relocated home sits along the Xingu River in Altamira, Para state, Brazil.

By Anthony Faiola, Marina Lopes, Chris Mooney June 28, 2019

ALTAMIRA, Brazil — Isolated indigenous tribes, three-toed sloths and stealthy jaguars still populate this corner of the Amazon rain forest. But now, it is also the home of something else.

The Whopper.

Burger King is just one of many new arrivals since an enormous dam project brought a population surge, shopping malls with food courts and U.S.-style subdivisions to civilization’s edge. As the Belo Monte dam complex — envisioned to be one of the world’s largest by power capacity — approaches completion, experts call the outcome here an example of the kind of massive development that could critically wound the world’s largest rain forest — even though Belo Monte is among the less environmentally damaging mega-projects of its kind.

Scientists believe the Amazonian ecosystem is far closer to an existential tipping point than previously thought, with potentially grievous results for the region and the planet. Yet under

Brazil's new far-right president, Jair Bolsonaro, the Belo Monte plant, which harnesses power through environment-altering dams, is a harbinger of the region's future. Reversing a decision by the previous administration, Bolsonaro's government has signaled its intention to put both large- and small-scale dams in the Amazon basin back on the table.

The Belo Monte dam utilizes a "run of the river" design that diverts part of the Xingu River into a secondary reservoir. (Jabin Botsford/The Washington Post)

The new dams could flood and destroy riverbanks, alter animal breeding cycles and provide the catalysts for large-scale urbanization, as happened here in Altamira. And even though they may generate renewable electricity, the huge projects will also spur greater deforestation because of the road networks and population surges that inevitably go with them. Many critics say the dams are not even needed to satisfy the nation's power needs.

But for Bolsonaro's Brazil, the dam network holds the irresistible potential of billions of dollars' worth of investments in Latin America's largest nation.

The hydroelectric plants will feed into national grids, powering distant mega-cities such as Sao Paulo and Rio de Janeiro. They will also bring tens of thousands of jobs and easier access to electricity deeper into the jungle, realizing Bolsonaro's dream of tapping the Amazon's economic potential for the 209 million residents of the country.

"Let's use the riches that God gave us for the well-being of our population," Bolsonaro said on a recent visit to the Amazon, where he proposed opening an ecological reserve to mining.

Anchored by Belo Monte, this frontier city on the banks of the Xingu River is now a developer's vision of the forest's future.

Follow the red earth roads on the outskirts of town to the Trans-Amazonian Highway, then take a right at the billboard of a beaming couple who "found their dream" home at Altamira's "New City" subdivision — built to take advantage of the dam-driven population growth.

Squint, and you can still see a patch of jungle canopy rising beyond the asphalt parking lot of the city's hottest hangout — the Golden Ridge Mall.

LEFT: Residents of Altamira eat at a Burger King inside the Golden Ridge Mall in April. RIGHT: Douglas Bretas, 28, the franchise owner of the mall's Burger King. (Jabin Botsford/The Washington Post)

On a busy Saturday night, Brie Larson is saving the Earth onscreen at the new multiplex. Twenty-four-packs of Coca-Cola are on sale at the Costco-like megastore. And over at the food court, Douglas Bretas — one part franchise owner, one part Bolsonaro-era pioneer — is helping his staff work the weekend rush behind the register at Altamira's newest institution: Burger King.

"Would you like to make that a combo?" a beaming Bretas asks a local woman in Portuguese. She flashes a quizzical look before replying, "Combo? What's a combo?"

A 28-year-old Bolsonaro supporter, Bretas is accustomed to the uninitiated. Eleven months ago, the blue-eyed optimist took advantage of the development sparked by the dam, moving here from Brazil's industrialized south to open Altamira's first international fast-food restaurant.

"My friends told me I'd either get shot with arrows or drink the sweet water" of success, he later joked, adjusting his black hairnet.

His bet is on track to pay off. Bretas said he broke even last month — faster than he thought. Now he's on the cusp of turning his first profit.

And profit, he says, means progress.

For him.

For the Amazon.

For Brazil.

"You get fries and a drink with the combo," he says, turning on the charm. "Look, it's a good deal."

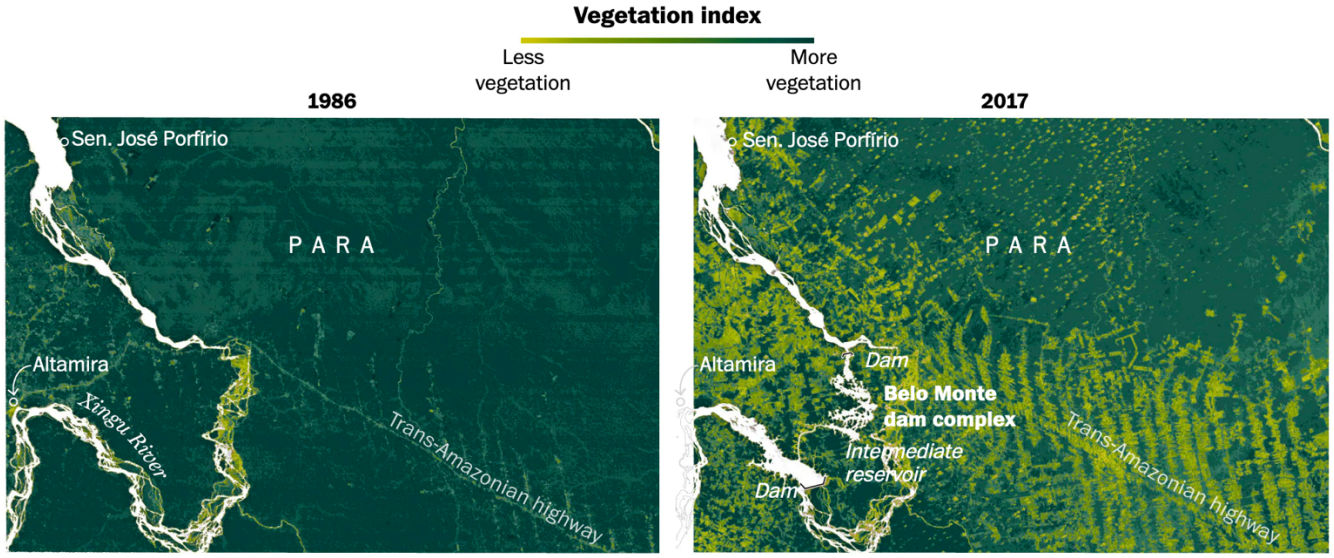
"Sure," the woman agrees. "I'll take it."

A resettlement community in Altamira for people displaced by the Belo Monte dam. (Jabin Botsford/The Washington Post)

The Amazon rain forest stretches like a blanket of green velvet across nine countries in South America. But no nation is more a guardian of the forest than Brazil, home to 60 percent of the Amazon basin.

Well before Bolsonaro, the Amazon faced serious challenges. Since the rubber boom of the 19th century, followed by the gold rushes, ranching, damming and logging of the 20th and 21st centuries, nearly 1 million square kilometers of the Amazon — about 15 percent — have been deforested.

And this rain forest may be in even more danger than most people think.



For years, scientists assumed that about 40 percent of the rain forest had to be lost before it would reach the dangerous point at which its ecosystem could no longer heal itself, creating drier, hotter weather cycles that could turn vast areas of the jungle into savanna.

But in recent years, scientists have delivered a more alarming verdict. Carlos Nobre, a senior researcher at the University of Sao Paulo, and Thomas Lovejoy, a noted ecologist at George Mason University, suggested that because of exacerbating factors such as climate change and worsening forest fires, such a red line could be crossed at a far lower threshold of 20 to 25 percent deforestation.

"If the rates increase — as one can see them increasing this year — it is likely that this tipping

point will be reached between 20 and 30 years" from now, Nobre said.

The effect, scientists say, would be devastating. Vast areas of the rain forest would be indelibly altered by changing climate patterns, leading to higher temperatures in the immediate area and lower rainfall not only in Brazil but also in Uruguay, Paraguay and Argentina.

The global impacts could also be severe. Unless deforestation is stopped before reaching the tipping point, some 50 or 60 percent of the Amazon will be lost, meaning the forest will no longer be able to pull carbon out of the air at the same rate, allowing about 550 million tons of carbon dioxide to remain in the atmosphere each year, according to Nobre. This amount is comparable to the annual emissions of a major economy, such as Canada or South Korea, dealing a potentially critical setback to the global effort to cut greenhouse gas emissions.

"If that tipping point is crossed, it's irreversible," Nobre said. "It's an ongoing dynamic process that will really lead to savanna-ization of 50, 60 percent of the Amazon."

For a time, there was reason for environmentalists to hope. Between 2005 and 2012, Brazil embraced a new sense of environmental protection that dramatically reduced the rate of deforestation. In 2004, 27,772 square kilometers of the rain forest were lost, according to official Brazilian government data. In 2012, the damage was just 4,571 square kilometers.

But now, Brazil is poised for a historic era of Amazonian exploitation under Bolsonaro.

Rita Cavalcante and Alberto Benicio da Silva pose for a photo where their home once stood along the Xingu River, before the Belo Monte dam was built. (Jabin Botsford/The Washington Post)

During the final months of last year's election campaign, illegal loggers apparently emboldened by Bolsonaro's rhetoric — and aided by dispirited inspectors — sparked a threefold increase in deforestation in some parts of the jungle, destroying 1,674 square kilometers of forest. Since taking office, the former army captain has eliminated the country's ministry of indigenous affairs and slashed the budget of Brazil's environmental protection agency by 24 percent. During the first two months of Bolsonaro's presidency, IBAMA — Brazil's environmental regulatory agency — issued fewer fines than at any point since 1995.

Last month, the agency created a body with the power to reevaluate and forgive fines, effectively neutralizing the work of its inspectors. Perhaps most importantly, Bolsonaro's cabinet has reopened the door to powering the nation through new hydroelectric dam projects in the Amazon — an idea the previous government nixed last year after weighing the impact in Altamira.

Dams that were once scrubbed — including the massive Sao Luis plant on the Tapajos River that would flood an area of jungle nearly twice the size of Miami — could be back on the table, authorities say. But what environmentalists see

as the start of a new and dangerous assault on the Amazonian ecosystem is being hailed as a belated embrace of progress by Bolsonaro backers.

“Investment inevitably brings about degradation,” said Otavio Neves, an administrator at the Association of Gold Miners of the Tapajos River in Itaituba, who heralded the potential of a new dam to open more and deeper terrain to mining.

“Progress is not made from cotton candy,” he said. “It is hard; it demands a lot from nature. But it has to exist.”

Dying trees where the Belo Monte dam was built. (Jabin Botsford/The Washington Post)

The price of progress is written on the banks of the Xingu River in Altamira.

Along the shoreline, rows of what were once tall and sturdy trees stand bleached white and dying. The frilly tops of acai palms bob just below the waterline.

Dams built in Brazil during the country’s military dictatorship flooded mass swaths of land and blocked the flow of the river completely. By the mid-2000s, Brazil had become more environmentally conscious and had cut back on some practices known to damage the rain forest. But the Belo Monte dam was nevertheless green-lighted — long before Bolsonaro became president — because of a chronic energy shortage that had led to blackouts and rationing over the previous two decades. Belo Monte, while still an enormous dam, has a somewhat smaller ecological footprint in one sense — it has a smaller flooded area, due to a “run of the river” design that diverts part of the Xingu into a secondary reservoir, rather than damming it entirely. Still, the dam flooded or degraded a plot of forest larger than Chicago. Locals say it also upended the ecosystem’s balance.

Experts say the slow flow of the water is killing the river’s 63 species of fish, including the pacu, a staple of the local indigenous diet, and altering the lifestyle of tribes that depend on them for nutrition. Construction of the dam also sparked deforestation in nearby indigenous reserves, as land values in the area soared.

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TOP: Bikes and a sculpture along the Xingu River in Altamira. BOTTOM LEFT: People take photos in an area that used to be a beach along the Xingu River, before the dam flooded it. BOTTOM RIGHT: A man bounces up and down on a slackline along the Xingu River in April. (Jabin Botsford/The Washington Post)

In Altamira, construction of the dam added 35,000 temporary workers to the 99,000 people already living there. The influx fueled a stunning growth spurt, even as tens of thousands of rural dwellers upriver were displaced. Many ended up in planned communities in Altamira, some of which transformed into ghettos rife with drugs and crime.

Altamira's mayor, Domingos Juvenil, dismisses the naysayers with a wave. If the dam brought anything, he says, it was a much-needed boost to the city's economy.

"Some people are against everything," he said. "It's the ideology of fear."

The dam, he said, "brought many benefits. It generated commerce. It brought new people.

"It brought progress."

That's a disputed position. New dams in the Amazon aren't needed in light of Brazil's capacity to generate clean energy using technologies such as wind harnessing, says Roberto Schaeffer, a professor of energy policy at the Federal University of Rio de Janeiro.

Meanwhile, although the Belo Monte dam has less of an environmental imprint than the older generation of Amazon dams, the project is nevertheless sure to cause more damage to the rain forest, Schaeffer said. Roads had to be constructed, as did a vast stretch of transmission lines. Workers who originally came to build the dam may stay and exploit the landscape.

"Any big work in the Amazon leads to deforestation," Schaeffer said.

An even bigger issue, according to Michigan State University anthropologist Emilio Moran, who has studied Belo Monte closely, is that the "run of the river" design of the dam means it can't sustainably generate as much power as promised. That, in turn, means there may be a clamor for more dams on the Xingu.

The sun sets at the Golden Ridge Mall. (Jabin Botsford/The Washington Post)

Four blocks away from the Golden Ridge Mall, which opened to great fanfare in 2017, Bretas, the Burger King franchisee, sat with his accountant in his new home. It's a green and yellow bungalow, with a crescent on the door — a design reminiscent of the Brazilian flag.

He went over the payrolls for the 17 people in the region who now have jobs because of him.

"We're providing work," he said.

Later, as he pulled out of his driveway in his silver Toyota, fat drops of rain blanketed his windshield. "The rain," he said, looking up. "That's one of the things you need to get used to out here. At home" — in Minas Gerais, a good 1,600 miles to the south, and a world away in one of Brazil's wealthiest states — "it never rained like this. Out here, it's always wet. And sometimes, it's lonely."

Back home, he was working for the company that built Golden Ridge, when his employers offered him an opportunity: Move to the Amazon and become a fast-food pioneer.

"To be honest, I was a little afraid," he said. "I thought of the forest as mysterious. I associated it more with fear than with adventure. In fairy tales, bad things happen in forests."

Douglas Bretas, the Burger King franchisee, drives to work. (Jabin Botsford/The Washington Post)

But the chance to start his own business — away from Brazil's big cities already saturated with competition — was too tempting to pass up. "I changed my life," he said. "My mom and dad used to pay for everything, but I was uncomfortable with my reality. I wanted my independence. "

In the age of his political hero — Bolsonaro — Brazil, too, he says, is asserting itself. Other industrialized countries have already harnessed their land and resources. Why, he reasons, shouldn't Brazil?

"It's hypocritical," he said. "The U.S. and the European Union say that the Amazon should be protected. But they destroyed all of their forests." For too many years, he said, Brazilian leaders were too weak, too hesitant. Bolsonaro, he says, is an inspiration.

"We are seeing things changing concretely now — not just fairy tales, but business owners who believe in the economy now," he said.

Across the food court from Burger King, there's a mural of jungle animals and forest — now a popular backdrop for mall-goers to take selfies. He's the only international fast-food chain here, but because of the dam and all it brought to Altamira, he's sure, he says, that the city is on the cusp of great things.

Not far away, a Canadian company is angling to build a large-scale gold mine, the kind of project that was stalled in recent years because of environmental risks — but that Bolsonaro has signaled a willingness to fast-track.

"I know other investments are coming, in gold and mining. It will bring hotels, and the city will grow," Bretas said.

He later added: "Because in the Amazon, you can make money. That's how I've always felt. That the Amazon was a place where you could really make money."

Photography by Jabin Botsford. Photo editing by Chloe Coleman. Copy editing by Emily Morman. Designed by J.C. Reed. Map sources: Forested areas data from University of Maryland's Global Forest Change project. Deforestation and Vegetation Indexes are based on Landsat data with analysis by Esri, a location intelligence company.