



## More Profits and Less Destruction

By Renata Vieira, *EXAME* Magazine

*With the largest cattle herd in the country, Pará state's municipality of São Félix do Xingu has managed to stop being the deforestation champion in Brazil by increasing local cattle-ranching productivity in what has become the best example of how environmental gains can coexist side by side with economic ones.*

São Paulo — When Rio Grande do Sul born Cleosmar Turmina arrived in São Felix do Xingu in southeastern Pará state, he expected to find good land and a lot of rain. *Gaúcho*, as he is known locally, found more than that. In addition to fertile and privileged soil due to the long rainy periods, land in São Felix do Xingu was cheap.

In 2006, he paid R\$110,000 reais (a little over \$28,000 in today's exchange rate<sup>\*1</sup>) for 655 hectares (1,618 acres<sup>\*</sup>). Today, the property's estimated value is 30 times higher. As soon as he took possession of his farm, he followed the same path as his neighbors: raising cattle in deforested areas. "At that time, smoke from forest fires covered the horizon," said the farmer, who left his life as a businessman in São Paulo with his family to dedicate himself to beef production. However, in the last three years Turmina decided to invest in new production techniques. Before, cattle roamed freely but now rotational grazing means they feed in specific areas. The edge of springs located on Turmina's land were fenced off to prevent cattle from trampling the forest in those areas since it could lead to the end of those sources of water. Part of the area deforested in the past is now being restored.

Turmina became one of the biggest supporters of sustainable cattle ranching in the municipality that once held the title of national deforestation champion in the Amazon. The change in Turmina's position helps show how São Félix do Xingu represents the worst and the best of the rapid expansion of cattle ranching in the Amazon region. With an area equivalent to twice that of the state of Rio de Janeiro (or an area larger than all of South Carolina<sup>1\*</sup>), the municipality is now home to the largest cattle herd in Brazil - about 2.3 million animals, corresponding to 1% of the country's entire livestock population. Most ranchers moved to the region in the 80's - and their migration intensified in the last decade. Since 2000, the herd has more than tripled.

Deforestation also advanced. By 2008, the municipality had already lost 25% of its forest cover and had the highest annual deforestation rate in the country. The trend spread at varying scales in the entire Amazon region, and cattle ranching became the main villain in the forest. Recent data from TerraClass, a federal government project dedicated to mapping the cover of the Amazon territory, show that pastures make up almost 60% of deforested areas – which is ten times higher than the area occupied by agriculture.

### Turning Point

Part of this story, however, is now in the past. São Félix do Xingu is no longer the top deforester in the Amazon region, although it is still one of the 25 municipalities "on alert" status since its annual deforestation rate is above the 40 square kilometers determined by the Ministry of the Environment. In the last six years, the annual rate of destruction fell 65%. The turning point occurred in 2009 when the beef industry and retailers were pressured into monitoring the production chain and not buying from those who deforested illegally.

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<sup>1</sup> Translator's Note

At that time, a survey of the NGO Greenpeace revealed that much of the beef purchased by large meat processing plants and retailers in Pará state originated from farms that were not compliant with environmental legislation. The complaint led Brazil's Public Prosecutor's Office to file a series of actions that paralyzed meat processing plants and stopped large supermarkets, such as Walmart, Carrefour and Pão-de-Açúcar from buying beef. At the same time, joint efforts to inform local farmers about more sophisticated techniques moved forward, showing that it is possible to increase the herd even when grazing areas are reduced.

One such effort features 18 ranchers who opened the gates of their properties to technicians from The Nature Conservancy, the largest environmental NGO in the world. The concept of win-win was the decisive argument that broke the initial resistance - preserving the forest is more profitable than cutting it down. That line of thinking had the support of businesses.

Marfrig, the second largest meat-processing company in the country, and the retail chain Walmart joined the Conservancy in the Sustainable Beef project and have been official partners since 2012. The goal is to have the beef processing plant in Tucumã, a neighboring municipality of São Félix, operating at 100% capacity – today it operates at 70% because there are not enough suppliers who meet sustainable production requirements.

Changing this reality means fighting the historical heritage of the region. Marcelo Stabile, a researcher at the Amazon Environmental Research Institute (IPAM in Portuguese), says that the lack of infrastructure in this part of Brazil has made cattle ranching a natural solution to land use for decades without anyone taking into account long-term damage.

The municipality's isolation helped perpetuate the use of outdated techniques. Like Turmina, many local farmers have to travel about one and one half hours on unpaved narrow roads to get to the city center. "A change in mentality is slow and has to be accompanied by technical assistance and investment," said Stabile.

Farms participating in the project had a land-usage rate of one animal per hectare. The goal is to triple this figure by 2018 when three hundred properties will be participating in the project. Today, the rate is closer to 1.6 animals per hectare - a gain of 900 kilograms of beef per year. "The pilot farms are successful showcases that encourage other producers to replicate the concept of intensification," says Francisco Fonseca, Sustainable Production Coordinator for The Nature Conservancy in the Amazon. "As farmers see that the new model reduces costs, they will naturally follow the practice." In neighboring municipalities, such as Ourilândia, Água Azul and Tucumã, 36 additional farmers are preparing to join the initiative this year.

## **Efficiency**

Many of the gains so far are due to a relatively simple change. The technique consists in dividing the pasture into four or eight fenced off areas and gather the herd in one of them instead of leaving them free to roam throughout the property. They graze in one of the enclosures and before its pasture is used up, they are transferred to a different one.

After 20 days, the herd goes back to the first enclosure after the grass has grown again. In the old model, the pasture area was degraded by the exhaustive use. This led to the need to clear new forest areas. For the farmers of São Félix do Xingu, the new approach allows the soil time to regenerate and the herd to fatten faster, thereby increasing land use productivity - and meat quality. The younger a steer is killed, the better the meat. "We learned to industrialize the farm and we will not go back to

the old ways," says Turmina, who obtained a gain of R\$ 2 reais (\$.51) for each *arroba*<sup>2</sup> sent in the last lot of cattle sold to Marfrig. The steers were six months younger than the ones from previous lots. The financial gain boosts the willingness to invest.

Lazir de Castro, who is 71 years-old and hails from Minas Gerais state, owns four farms in Pará and about 8,000 head of cattle. He had to shell out 1 million reais (\$256,246\*) to set up 100 kilometers of fences to demarcate the property and separate pasture areas from conservation ones. "The cattle already spend less time in the pasture and my costs are lower," he says. He has started adopting basic genetic enhancement techniques when selecting cattle with more favorable characteristics. Mr. Lazir, as he is called, is one of the few local producers who has been able to legalize the ownership of his property - and thus have access to credit.

The majority of his neighbors are in land-ownership limbo. In 2006, Pará state canceled thousands of land titles after noticing that the number of hectares in property records was much greater than the actual area of several municipalities. In São Félix do Xingu, property titles added to almost twice the municipality's approximately 84,000 square kilometers – this situation has been fueled over decades through a mix of bad faith and difficulty in accurately measuring properties amid the intact forest. "The disconnect between what's on paper and what actually exists on the ground makes land ownership status in Pará one of the most confusing in the country", says Girolamo Treccani, a professor of agricultural law at the Federal University of Pará.

Since 2010, a decision of the National Judicial Council, reinforced by another decision of the Pará Court of Justice, ruled that canceled titles could be revalidated with proof of ownership of the land. Farmer Pedro Rodrigues, 57, is part of the group that awaits a ruling regarding their properties.

Mr. Pedrinho, a man from Piauí state who grew up in Tocantins state, bought 3,000 hectares in São Félix do Xingu 30 years ago when the roads leading to the municipality were still being opened. He is committed to the Pact for Zero Illegal Deforestation and has not opened new areas in his property for cattle ranching since 2008. "Conservation increases the value of our land, it's like a savings account," he says. His goal for the next two years is to expand the herd from 5,000 to 8,000 head of cattle via land-use intensification. He already uses two rotational pastures under the guidance of the Conservancy. For farmers in this legal limbo, financial aid from the project organized by the NGO has been paramount. The project has already made 1 million reais (\$256,246\*) available.

For producers in the Amazon region, investing in these techniques is not a matter of choice in the long run. Large meat processing companies today are able to immediately suspend purchases from those who do not obey the law by crossing data from suppliers with public information records; the list of embargoed properties from the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA) and the Ministry of Labor, as well as from satellite images that monitor deforested surfaces.

Marfrig has more than 8,000 monitored suppliers and has already had to block 20% of them when land invasion and deforestation were detected in their lands. It is not an isolated effort. For at least eight years, the largest beef chain companies have been organizing to discuss and publicly formulate principles and practices for cattle ranching in the country. The Working Group on Sustainable Livestock (GTPS) brings together giants of the industry such as beef processing JBS, Marfrig, and Minerva; chemical companies Dow and Syngenta, as well as financial institutions and NGOs – there are already 75 members. Today, about 20 municipalities benefit from these aid programs to farmers.

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<sup>2</sup> A unit measure that in Brazil equals 14.4 kilos (32 pounds)

"Brazilian industry has created the largest geographic raw materials monitoring system of tropical forest in the world," said Fernando Sampaio, president of both the Brazilian Association of Beef Exporting Industries and the GTPS. Still, 20% of all cattle slaughtered in Brazil do not undergo any inspection due to a persistent parallel illegal market.

There are numerous obstacles to achieving complete control of the chain considering it involves about 5 million farmers. The sector's problems match these superlative numbers. In the domestic market alone cattle production is a 380 billion reais (\$98.1 billion\*) industry, and Brazil exports more than two tons of beef annually - making it the world's largest beef exporter. However, it has become increasingly clear that one must stop destroying in order to continue to grow and be profitable moving forward.

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<sup>i</sup>\*Translator's note