Green Beef: Amazonian preservation vs agribusiness profits

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Earlier this year, JBS, the world's largest meat corporation based in Brazil, made a sustainability pact to sustainably source all their cattle. This reflects an emerging trend that encourages and puts pressure on ranchers, organizations, and corporations to transform the cattle industry - an industry that is at fault for 80 percent of deforestation of the Amazon rainforest, altering local hydrological cycles, and 17 percent of Brazil's CO2 emissions. However, many argue and assert that the solution lies in the problem itself.

If the expanding (Links to an external site.) Brazilian cattle industry can shift to sustainable techniques - such as to intensify productivity on existing land and technologically track the legality of their supply chain - then the industry can stop its attack on the Amazon, as well as make peace with international environmental pressures. This trend towards sustainability, however, is emerging from an industry that, in the past, has been environmentally degrading, corrupt, and unethical.

History and Impact of Cattle Industry

Historically, the cattle industry has been a large form of land and economic development in Brazil since the 16th century. Now an international market that totals around 232 million heads of cattle, the Brazilian beef industry has increased by 56 percent since 1990 (Links to an external site.), becoming the number one exporter of beef in the world. Brazil's domestic market for beef is huge, however much of the industry is driven by Hong Kong and China who accounted for 44 percent of Brazil's total beef shipment in 2019 (Links to an external site.).

However, as the global market continues to expand, the Amazon rainforest continuously diminishes. The lush green of the Amazon has turned red in places where illegally-set fires are clearing land for cattle ranching, so much so that 80 percent of deforestation is for the purpose of cattle pastures (Links to an external site.). As a result, over the past 40 years, the 'lungs of the world' have lost about 20 percent of its area (Links to an external site.).

This trend of systemic deforestation began in the 1970s during a land rush when people migrated from the southeast of Brazil, into the Amazon, and created pastures on free land given by the government. They settled along the Trans Amazonian Highway, a 2,000-mile-long road that cuts through the Amazon, a biome that is home to one in every 10 plant and animal species in the world and millions of indigenous people (Links to an external site.). Believing much potential for development laid within the exotic, "untouched" Amazon, the government wanted to cultivate the land, thus cultivating their economy.

Politics and Pressure

The link between deforestation rates and government priorities are irrefutably intertwined. High deforestation rates often mean a bolstering agribusiness sector. In the late 2000s and under

former President Luis Inácio Lula da Silva, Amazonian deforestation rates reached an all-time low. A series of policies were put in place, such as the anti-deforestation beef and soy moratoriums, due to international environmentalist pressure and "intensive lobbying by civil society organizations," wrote a 2019 study (Links to an external site.). In 2009, meatpacking companies legally signed away their rights to purchase cattle from illegally deforested properties and Brazil's largest beef companies, Marfrig, Minerva, JBS, and Bertin, signed the "G4" zero-deforestation agreement.

Many of these sanctions and agreements, however, have been broken as companies have again and again been linked to cattle suppliers that operate on illegally deforested land (Links to an external site.). Beef industry bigwigs play a huge role in the realm of politics as well. Once the Ruralistas, a group of ambitious agribusiness-minded politicians, gained more power in Congress, they began to make changes in environmental protection policies. Since current president Jair Bolsonaro took office in 2019 (Links to an external site.), he has deregulated many environmental laws, fired numerous environmental ministry leaders, replaced them with personal allies, and encouraged illegal clearing by failing to enforce deforestation citations. Red met green again as fires erupted across the Amazon; in the past year, deforestation rates have risen by 30 percent (Links to an external site.). However, a strong agribusiness sector fuels Brazilain economic growth (Links to an external site.) and infrastructure development.

It's safe to say that many special interests lie in weak environmental policies and an expanding cattle export industry, especially with the current administration. However, although large beef corporations in Brazil don't need to worry about domestic environmental pressures, there are many international actors that are pushing the meatpackers to commit to sustainability.

International Input

The pressure to drop meat companies has grown more and more as the Amazon Forest continues to burn. Many different countries have been under talk as to whether or not investors are truly "green" or not. One example of this occurring is in the United Kingdom. Earlier this year it was revealed to the public that UK investors had put in $2BN (Links to an external site.) to help support these meat companies. However, this large investment meant to help support those companies would only lead to more deforestation. So, to counteract the actions of these companies, many investors have decided to pull out from investing in them and putting their money towards organizations to help stop deforestation.

Nearly three months ago, investors within northern Europe's largest financial services group had dropped JBS (Links to an external site.) from its portfolio. The Brazilian company is now being excluded from taking assets sold by the Nordea Asset Management, which controls a $272 billion fund. The group cited their reasons as being the large meat producers' links to farms involved in deforestation and past scandals of corruption within the company.

"The exclusion of JBS is quite dramatic for us because it is from all of our funds, not just the ones labeled ESG," said Eric Penderson, the head of responsible investments. ESG stands for the "environmental, social, and governmental" standards that are used to determine a company's sustainability and societal impact for investors.

Meat Packers Make Change

JBS's partnership with sustainable cattle ranching organizations and sustainability pledges (Links to an external site.) have displayed their turn of a new leaf.

"We publicly reiterate our commitment to the sustainability of the Amazon, one of Brazil's most precious natural resources," said Gilberto Tomazoni, global chief executive for JBS.

JBS has pledged to increase information and transparency about where their cattle are purchased from through blockchain technology (Links to an external site.). This system will track livestock suppliers that want to do business with JBS and the suppliers will be required to prove that the meat being sold to them was not grown on deforested land. The meat company will keep track of its more than 50,000 suppliers and record where all the livestock comes from. The idea is that this will reduce the number of people who think it's acceptable to burn the Amazon for good business. Any supplier who would refuse to comply with the rules will not be permitted business with JBS.

"Currently, the company does not monitor indirect suppliers and no company does so. But we plan to close this gap using technology," said Tomazoni.

Monitoring direct and indirect suppliers can be a difficult task because of how cattle farming works. It is common for cattle to be sent from one place to another depending on what is next in the cattle-raising process. One farm will do the birthing, one will wean the cows off of milk and start feeding them hay and grass, another one will fatten them up, and then the cattle will finally go to the meatpacking plant. Direct suppliers are the ones who fatten up the cattle and send them to the company that needs the cattle for the meat. Indirect suppliers are the ones who might do all the behind the scene work. Since cattle can travel around many different farms and factories, it can be difficult to keep track of every single animal. This is what is hoped to be fixed in the near future.

JBS has also recently started the "JBS Fund for the Amazon" (Links to an external site.) which will be used for forest restoration projects as well as to further fight deforestation. They plan on contributing 250 million Brazilian reals, which equals about 46 million dollars, over the next 5 years.

Another company that is seen as one of the largest meat producers in Brazil is Marfrig (Links to an external site.). They have also announced plans to do their part in saving the Amazon and reducing emissions. Marfrig hopes to be able to reduce the number of direct emissions by 43% by the year 2035. This would mean that anything they do in their meatpacking plants would utilize less energy and be more efficient. They are also hoping to reduce indirect emissions by 35% by the year 2035. This would mean that they plan to work with the farmers to increase their efficiency during the raising of animals. Finally, they have also announced plans to have absolutely no part of their chain, themselves or their suppliers, involved in deforestation by 2030.

On paper, this all sounds great and people have applauded these companies' commitment to helping the Amazon in their own ways. However, people have also criticized them for the amount of time they say it will take for change to happen. Immediate action is much more preferred by environmental activists rather than a long-term plan to reduce emissions and stop

deforestation since at the rate the Amazon is currently being destroyed, any action might be too late.

Other Innovative Organizations

Non-governmental organizations like Instituto Centro De Vida (ICV) have started programs like The Novo Campo (Links to an external site.) sustainable cattle ranching program. It is an innovative project in Brazil's Mato Grosso state that, for some cattle farms, has doubled cattle productivity and reduced greenhouse gas emissions by 20 percent per hectare. This program was created in response to deforestation and aims to transform degraded cattle pastures by implementing techniques that capitalize on efficiency and avoid expanding land, such as rotational grazing and feed supplements.

“Novo Campo's framework can be expanded to livestock outfits across Mato Grosso, where ranchers own over 30 million head of cattle, and over 10,000 hectares of degraded pastureland in critical riparian areas will benefit from reforestation,” wrote Initiative 20x20 (Links to an external site.), a Latin American environmental protection and restoration organization. “As it expands, the program will be a fundamental step towards the realization of fully traceable zero-deforestation beef.”

Novo Campo’s partner, PESCA, or Pecuária Sustentável da Amazônia (Links to an external site.) (Amazon Sustainable Cattle Ranching), provides technical, management, and investment aggregation assistance to the pastures. Another one of their partners, Aliança da Terra (Links to an external site.), identifies the “good farmers” by creating the “Producing Right” platform that consists of 1,500 members from over 5 million hectares of farming land who “who adhere to preserving forest, protecting wildlife, and improving social and labor conditions on their ranches,” wrote The Christian Science Monitor (Links to an external site.).

Technologies Used

Some organizations in Brazil are eager to push others in the industry toward sustainability through work with genetics companies to improve the performance and profitability of their herds (Links to an external site.). Alta Genetics laboratories are working with farmers to create fatter, healthier, more mature cattle. The genes of the best cows and bulls are stored and fertilized, then the embryos will be shipped to the company's customers for artificial breeding of surrogate cows across the country. The goal is to create cattle that are adaptable to climate change, but also cattle that are quicker to slaughter, meaning less energy (and money) is spent on raising them.

Select farmers and cattle ranchers have adopted a smart farming technique known as the Integrated Crop-Livestock-Forest Production system (ICLFS). Since 2010, areas with implementation of ICLFS have seen a growth of 11% annually, reaching 12.61 million (Links to an external site.) in 2016. ICLFS is a technique where meadows or grazing grounds, fields, and forests are combined to achieve the best results. Leonardo Sales, a cattle rancher in the arid north of Brazil’s Minas Gerais state has recovered more than 100 hectares of degraded pasture (Links to an external site.) in less than one year with the ICLFS.

“Deforestation is absolutely out of the question,” said Sales.

Technology, such as genetic modification and ICLFS, has immensely helped in the implementation of sustainable agricultural practices. Technological advancements can help meet the rising demand of meat for an increasing world population. Sustainable production goes hand in hand with technological innovation, such as reusing waste to generate energy (Links to an external site.).

”JBS Brazil reused 121,000 metric tonnes of waste to generate energy, over 9 percent more than the previous year,” Tomazoni said.

Satellite technology (Links to an external site.) has enabled complete tracking of the cattle supply chain that would guarantee that the meat produced is not a result of deforestation. Rapidly advanced data sciences have slashed costs, increased efficiencies in production, and allowed more meaningful insights for the industry.

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It’s difficult to amass the effectiveness of these sustainable practices, especially in the face of the cattle industry’s environmentally damaging history and repeated illegal actions. However, it’s important to spotlight the sustainable work that companies, organizations, and global actors are doing to build more sustainably efficient industries. There is significance in exposing the damaging actions that certain industries are taking and holding them accountable to the public, especially when those actions are reinforcing corrupt, consumptive behavior. We celebrate, however, the transformative actions being taken by the Brazilian cattle industry, to move towards a greener, cleaner world, pay forward a message of transparency, solidarity, and sustainability.

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