

Reestablished China-Brazil beef trade means more than cheap churrasco

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China has given the green light to Brazil's red meat (image: [Edilson Rodrigues/Agência Senado](#)).

On the Brazilian leg of Chinese Premier Li Keqiang's Latin America tour that also included visits to Colombia, Chile and Peru, Brazil's environment ministry **announced** that a three-year ban on beef exports to China would be imminently lifted. Nine industrial beef producers have now been approved to supply the Chinese market after the formal cancellation of the ban, in place since 2012 because of a single reported case of Bovine Spongiform Encephalopathy (or BSE, commonly known as mad cow disease). The approval of more Brazilian beef plants is expected to follow.

Reopening the meat trade is part of a huge new cooperation package between China and Brazil, the centerpiece of which is the proposed **transcontinental railroad project** which will connect the Atlantic and Pacific oceans. The railroad is expected to boost economic development considerably in Brazil and Peru, as well as other Latin American countries.

Although the route of the railroad has not yet been decided and the technical and environmental impact assessments are yet to be carried out, it is expected to run through the state of Mato Grosso, Brazil's agroindustrial heartland, where large-scale cattle ranching and soybean plantations are concentrated. If it becomes operational, the railroad could greatly reduce the transportation costs for beef and soybean exports from Brazil.

As trade between the countries grows and infrastructure projects move forward, people living on opposite ends of the globe will become increasingly aware of the environmental consequences of China importing more Brazilian beef. And the bigger picture of the globalized livestock industry, characterized by a 'meat triangle' between industrialised producer/consumer countries, emerging consumer countries and resource-provider countries will also become clearer.

Growing appetite

With the growing demand for meat in China, the country has already become a net importer of soybeans, a major ingredient in animal feed. According to United States Department of Agriculture (USDA) data, in 2014, China imported 73.5 million tonnes of soybeans, nearly six times its domestic production of 12.4 million tonnes. The US and Brazil accounted for over 85% of the supply, with over 30 million tonnes each. The USDA **projects** China will import 107.7 million tonnes of soybeans in 2024, 7.7 times more than domestic production, and close to the entire amount of exportable soybeans from Brazil and the US, combined.

In 2014, 86% of soybeans consumed in China **were crushed** to produce soybean oil and soymeal, the latter is mainly utilized by the livestock industry as feed. This percentage is **projected** to climb to 90% by 2024. But almost all domestically-produced soybeans, only 14% of those consumed in China, are processed to make soy-based foods such as tofu and soy protein.

Although pork remains the top meat consumed in China, beef consumption is climbing. In 2014, China produced 6.9 million tonnes of beef (including veal), and **imported** another 417,000 tonnes, mainly from Australia, Uruguay and New Zealand. Recent **projections** estimated that in 2020, China's beef imports will exceed 770,000 tonnes, a growth of over 50% in five years. In September 2014, the Chinese government announced a national policy of **increasing** imports of beef and lamb—both more economically valuable than pork—to keep up with the shifting consumption pattern in cities.

Adopting the US model

An emerging consumer pool like China is following the production and consumption model set by industrialised countries such as the US, where 5% of livestock farms produce over 50% of the meat supply in confined, concentrated, capital and energy-intensive industrial production facilities. Per capita meat consumption in the US is over 100 kilograms (kg) per year, or about 300 grams (~10

ounces) per day. In comparison, China consumes half as much meat on a per capita basis, around 150 grams (~5 ounces) per day. Although it doesn't seem like much, consumption in both countries is way above the healthy levels **recommended** by the World Health Organization. In other words, overconsumption of meat is prevalent.

The industrialisation of animal farming in the US began after World War II. Over the years, large agribusinesses integrated to include every part of the production chain from feed sourcing to meat packaging and have gained the power to influence agricultural, environmental and nutritional policymaking.

Driven by the expansion of western-style fast food outlets and supermarkets selling packaged meats, this factory-like, standardized production model is being adopted in China and a growing number of "Dragon Head Enterprises" (representing the head of a vertically integrated production chain) are benefiting from policy incentives. They are meeting the demand for more and cheaper meat. Such demand, though, is largely created, maintained and increased through marketing efforts.

From exporting resources to sustainability

Industrialised animal farming, if managed well, might hold the desirable features of a shorter growth cycle, lower breeding overheads, better traceability and less greenhouse gas emissions per unit of product by weight. However, the present goal of maximizing cost efficiency has some concerning consequences; the need for formulated feed containing antibiotics and hormones to control diseases and stimulate growth, the need for vast amounts of water to hydrate animals and dispose of their waste, the need for constant energy input to manage temperature and lighting in facilities confining tens of thousands of animals, not to mention violations of animal welfare.

Due to grassland degradation, other losses of arable land and limited freshwater resources, it is extremely challenging for China to meet the demand for meat without sourcing it from overseas. In recent years, China's strategic moves to secure meat supply have caught global attention.

For Brazilian beef producers, reentering the Chinese market is an opportunity to make sizeable profits. However, deforestation for low-efficiency cattle ranching and soybean cultivation has already resulted in the loss of much of the country's "real gold": freshwater resources, biodiversity and biomass of the Amazonian rainforest and the Cerrado. They provide invaluable ecosystem services of global importance including local and regional climate regulation, carbon sequestration, soil fertilization and the prevention of erosion and desertification. Some of these services, such as carbon sequestration and biodiversity, are crucial not only to Brazilians or South Americans, but the entire planet.

The direct and indirect effects of a re-established beef trade between Brazil and China deserve careful study. Meat overconsumption has posed huge challenges to many countries including, but not limited to, the US, China and Brazil. Addressing the issue could bring a series of mutual benefits, such as reduced pollution, climate change mitigation, healthier populations with lower health care expenses, higher food security and ecological conservation.

The concept of “delegitimation” has been discussed in the context of curbing fossil fuel consumption. Similarly, delegitimising overconsumption of meat has the potential to change the predominant model into a more sustainable one. The time has come to reconsider the relationship between human beings and animal products, with the future of a healthy world in mind.