



**A STEP TOWARD SUPPLY CHAIN SUSTAINABILITY:
THE ROUND TABLE ON RESPONSIBLE SOY IN BRAZIL, 2005–2017**

Blair Cameron drafted this case study based on interviews conducted in São Paulo, Cuiabá, and Brasília, Brazil in March and April 2017. The British Academy-Department for International Development Anti-Corruption Evidence (ACE) Program funded the development of this case study. Case published August 2017.

SYNOPSIS

In the early 2000s, deforestation accelerated in Brazil’s Amazon rainforest, and global environmental groups began to raise the alarm. Greenpeace, one of the most vocal groups, published a report that placed the blame partly on the soy industry, which had grown rapidly in Brazil, Argentina, and Paraguay. In response, industry representatives joined with nongovernmental organizations, financial institutions, supermarkets, and others in the soy supply chain to form the Roundtable on Responsible Soy (RTRS). Following the model of the Roundtable on Sustainable Palm Oil, which worked to transform the environmentally destructive palm oil industry in Southeast Asia, the RTRS wanted to implement a supply chain certification system to help identify whether harvests came from land deforested without regard for environmental impact and nudge soy farmers into a new era of sustainable production. The roundtable participants successfully developed a standard for responsible practices, and enrolled a number of large farm enterprises. But low demand for certified soy and the high cost of becoming certified slowed progress, especially among smaller producers. As of 2017, less than 1% of soy produced in Brazil was RTRS certified, and uncertified landholders continued to convert important natural ecosystems into soy farms. Although the RTRS succeeded in bringing together key players in the soy industry to talk about sustainability for the first time, it was clear that complementary efforts were necessary to shift the soy industry as a whole toward environmentally friendly production.



INTRODUCTION

In March 2005, representatives from an unlikely group of global organizations gathered at the Bourbon Resort on the Brazilian side of the Iguazu Falls, a spectacular waterfall system on the border of Argentina and Paraguay. Their common interest: to set the rapidly growing soy industry on a sustainable path forward.

Not far from the tri-border area, thousands of hectares of forests had been cut down to make way for large soybean plantations. The change in landscape was stark, especially in Brazil. Brazil was the world's second-largest soy producer, after the United States, and most of the country's soy was exported to Europe as soymeal, a protein-rich feed for chickens, pigs, fish, and cattle. Consumers around the world were eating more meat, and farmers needed more soymeal to feed their animals.

The Iguazu Falls meeting, convened by the World Wide Fund for Nature (WWF, known in North America as the World Wildlife Fund), brought together a diverse group. On hand were representatives from a Swiss supermarket chain, a Brazilian farmers association, a global consumer-goods company, a Dutch aid organization, and South America's largest soy producer. Inside the resort, the attendees discussed what might be done to make soy production more compatible with environmental concerns. Widely divergent perspectives worked against consensus. Farmers wanted to keep expanding soy production into forested areas, whereas environmental groups wanted to halt all expansion in areas not already converted to farms.

Outside the hotel, differences of opinion were even more pronounced. More than 600 people from rural peasant associations and nongovernmental organizations (NGOs) in Paraguay, Argentina, and Brazil gathered to protest the domination of the industry by corporations and large private companies that grew vast fields of genetically modified soy crops across South America.

The meeting took place at a critical time. During 2004, landholders had cleared more than 2.7 million hectares of Brazilian rainforest—an area almost the size of Belgium—and the country's deforestation rate had reached its highest level in a decade. Soy production was one of the leading causes.

On the other side of the world, a similar group that included some of the same multinational companies and NGOs had come together to deal with another rapidly expanding cash-crop industry implicated in rainforest destruction. The Roundtable on Sustainable Palm Oil (RSPO) aimed to protect Southeast Asia's rainforests and promote sustainable production by certifying farmers who complied with specific agricultural and management standards. In turn, palm oil buyers would pay higher prices for the certified product.

The Iguazu Falls attendees wanted to follow the same model as the RSPO to shift the soy industry into a new era of sustainability. In 2006, the group met again, this time in Asunción, the capital of Paraguay, and in November of that year the attendees established the Roundtable on

Responsible Soy (RTRS) as a nonprofit association in Switzerland. By that time, more NGOs, industry associations, retailers, and financial institutions had joined the original group—and the protest movement against the new initiative had grown as well.

Participants elected an executive board that included representatives from five farmers associations, five civil society groups, and five industry organizations and chose Christopher Wells, who represented one of the industry organizations, as the association’s president. Wells—an American who worked as the environmental risk manager for Banco Real, a Brazilian bank now owned by Spain’s Santander Bank—encountered no shortage of opinions among RTRS members.¹ “We did not have trouble getting people together to talk; everyone had something to say,” Wells recalled. “The debates were very heated.”

After reaching consensus on certification criteria, convincing farmers on the ground in Brazil to comply with the voluntary standards would be an even more difficult task.

THE CHALLENGE

The newly formed RTRS first had to decide on standards for responsible soy production and then work out a system to certify producers according to those standards. But reaching consensus among such a diverse group of stakeholders and overcoming decades of expansionist agricultural policies would be tough. Burgeoning global demand for soy meant that Brazilian farmers and industry groups were poised to reap big profits, and they preferred to avoid any restrictions that might prevent expansion or raise costs.

At the time, about three-quarters of the global supply went into animal feed in the form of soybean meal—mostly for chickens and pigs but also for cattle and farmed fish. As global demand for poultry, pork, beef, eggs, dairy products, and fish had grown, demand for soy had risen sharply.

Part of that growth in demand was due to policy decisions made in Europe. Prior to 2000, farm animals in Europe were fed bone meal, a mix of finely ground waste products from slaughterhouses, as a source of protein. But in the 1990s, researchers had found links between consumption of bone meal by cattle and the spread of bovine spongiform encephalopathy, widely known as mad cow disease. An outbreak of mad cow disease in the United Kingdom raised public concern because people who ate meat from infected cattle were at greater risk of developing Creutzfeldt–Jakob disease, an incurable and fatal brain disorder. The European Commission in 2001 banned the use of bone meal as feed for *all* animals within the European Union—even though there was no link between bone meal and diseases in

¹ The opinions expressed by Christopher Wells and Silvia Chicarino in this case study do not necessarily represent those of Santander Bank.

chickens and pigs. Farmers needed a new protein source for their livestock, and soymeal from Latin America was the cheapest option.

After animal feed, biodiesel was the next-biggest driver of demand. In addition to producing soymeal, soybean-crushing factories also made oil that could be used to produce fuel. Biodiesel production rose sharply in North America and Europe throughout the early 2000s because many governments, companies, and consumers wanted to cut their reliance on fossil fuels. Soybean oil also was used as a cooking oil and in food products such as mayonnaise.

In the early 2000s, environmental groups began to highlight the link between soy farms and forest loss. Pressure intensified in early 2006, when Greenpeace released *Eating Up the Amazon*, a report that condemned several multinational companies for their roles in conversion of the Amazon rainforest into soy farms. To underscore its point, the report focused on Cargill, a United States–based agribusiness company that was a major soy trader, and McDonald’s, a global restaurant chain that used meat from soy-fed chickens in its popular Chicken McNuggets.¹

In July 2006, industry associations in Brazil signed an agreement with Greenpeace to discontinue buying soy from farms involved in deforestation in the Amazon region. Although participation was voluntary, the so-called soy moratorium was an important step toward addressing the deforestation crisis (see Text Box 1).

Still, some in the RTRS did not think the commitment went far enough. First, the moratorium focused on the Amazon rainforest and not on other important biomes like the Cerrado, the tropical savanna that covered one-third of Brazil’s territory. Although the Amazon received more attention from environmentalists, the Cerrado was similarly biodiverse and was home to thousands of endemic plant and animal species.²

Second, the moratorium required only that companies not buy soy from farms linked to deforestation, slavery, or infringements of indigenous rights. Some RTRS members wanted a more comprehensive system that could certify that farms were well managed, used best agricultural practices, complied with all pertinent laws, and did not negatively affect the environment or local communities.

Such a system would create difficulties for Brazilian soy farmers, many of whom already struggled to comply with strict federal, state, and local laws that were often complicated or expensive to implement. Some farms had infrastructure that did not meet legal standards, and many farmers lacked the requisite licenses for their facilities. Labor laws required farmers to have formal contracts and follow federal laws regarding pay and working hours the same as any other employer, but in many rural areas, informal arrangements were the norm. To comply with the law, many farmers would have to

Textbox 1: The Amazon Soy Moratorium

In mid 2006, after Greenpeace released its *Eating Up the Amazon* report, staff from the NGO met with Amaggi representatives to discuss possible solutions to the deforestation crisis in the Amazon. Soon after, other soy companies joined the discussions. In July of that year, Greenpeace signed an agreement with the Brazilian Association of Vegetable Oil Industries (Abiove) and the National Association of Grain Exporters (Anec), to eliminate deforestation in the Amazon biome from the soy supply chain.

Soy companies that were members of Abiove and Anec (which collectively covered about 90% of the Brazilian soy trade), as well as Greenpeace and other NGOs, formed the Soy Working Group (known by its Portuguese acronym, GTS) to enforce the agreement. Members of the group committed to not purchase soybeans from or finance soy production in areas under embargo by IBAMA or the Ministry of Labor as well as any farms that had deforested after July 2006 (the cutoff date was later changed to July 2008 to match Brazil's revised forest law, which offered amnesty to landowners that had illegally deforested prior to that date).

The moratorium was extended in 2008 and renewed annually until 2016, when the group decided to commit indefinitely to the agreement. Each year, the GTS hired an audit firm to check participants in the moratorium for compliance.

Researchers from the University of Wisconsin found that after the soy moratorium was signed, very little soy was grown on recently deforested properties. However, the same researchers questioned the effectiveness of the moratorium on a larger scale, suggesting that some farmers merely moved other productive activities, such as cattle ranching, onto the recently deforested areas of their farms. Others noted that the soy moratorium may have caused a shift in soy production from the Amazon region to the Cerrado, where the moratorium was not enforced.¹

¹ Lisa L. Rausch and Holly K. Gibbs, "Property Arrangements and Soy Governance in the Brazilian State of Mato Grosso: Implications for Deforestation-Free Production." *MDPI*. Multidisciplinary Digital Publishing Institute, March 24, 2016; <http://www.mdpi.com/2073-445X/5/2/7/htm>

upgrade facilities and equipment, apply for certain licenses, and improve working conditions for employees.

Any type of system set up by the RTRS would hit farmers that chose to participate with additional compliance costs. And because certification systems relied on third-party auditors to inspect properties and check that farms met and maintained the standards, farmers would also be responsible for paying periodic audit fees.

There were also big opportunity costs associated with forgoing further expansion of their soy crops into forested areas. The government permitted such expansion as long as farmers respected a decades-old law to preserve forests on specific percentages of their land. For instance, in the Amazon region, farmers had to conserve forests on 80% of their land, which meant they could clear only 20% for crops. In the Cerrado, farmers had to conserve natural vegetation on just 20% of their properties.

Not surprisingly, few farmers were willing to preserve more forest land than the law required. "The farmers said, 'If I have the land and I have the permission to do the deforestation, then why can't I do it?'" recalled Silvia Chicarino, who worked with Wells (then at Banco Real and later at Santander Bank).

At the time, earning government support for an initiative that might restrict soy expansion was unlikely. Early in his presidency, President Luiz Inácio Lula da Silva, who held office from 2003 to 2011, set a high priority on expanding Brazil's agriculture industry and saw soy as a key driver of economic growth.³

Political support for soy expansion was even stronger at the local level, especially in the western state of Mato Grosso. Although soy was grown in several regions across Brazil, Mato Grosso was the area of greatest concern. The state was huge, sparsely populated, and covered mostly by the Amazon rainforest, the Cerrado savanna, and the Pantanal, the world's largest wetland. All three biomes were important natural habitats for thousands of species, many of which could only be found in Brazil.

Mato Grosso's governor, Blairo Maggi, had spearheaded projects to build highways that cut through forests and to establish ports on important waterways to improve transport networks for the soy industry. Known in Brazil as "the soy king," Maggi had made hundreds of millions of dollars from his stake in Amaggi Group, the world's largest private soy producer, which his father had started in 1977. Representatives from Amaggi, keen to improve the company's sustainability credentials, were active participants in the RTRS discussions.

For its certification plan to succeed, the RTRS had to persuade farmers not only to refrain from converting forests to farmland when they were legally entitled to do so, but also to take on greater expenses at the same time. As a result, incentives were crucial.

In the absence of any direct financial incentives from the government or the private sector, RTRS participants hoped that end users might be willing to pay higher prices for certified products and that the premium could be passed on to farmers. Other certification systems, like Fair Trade, had successfully built markets for certified agricultural goods, such as coffee, which were sold to consumers with a seal indicating the product was produced sustainably or that farmers were paid fairly.

But developing a market for certified soy was far more difficult than building one for coffee because most consumers did not even realize that soy went into making many of the products they used. Although most soy meal was fed to chickens and pigs, for example, few consumers thought about soy and forest conversion when they bought eggs or bacon. It would be a huge marketing challenge to convince consumers to pay a premium for certified soy when most were completely unaware of the soy embedded in the products they ate every day.

Finally, a complex supply chain complicated the process of differentiating certified soy from noncertified soy. Three United States-based multinational companies—Cargill, Bunge, and Archer Daniels Midland (ADM)—bought more than half of Brazilian soy, but they bought both directly from farmers and from smaller trading companies. Often, the

companies processed the soy at crushing plants in Brazil, but sometimes they shipped beans to crushing plants abroad. Tracking certified soybeans and keeping them separate from noncertified soybeans in such a system would be nearly impossible.

FRAMING A RESPONSE

Before RTRS members could put the certification system in place, they had to divert to another issue: working out a position on the controversial topic of genetically modified soy. When the RTRS formed, more than 50% of global soy production came from genetically modified seeds, and that percentage was increasing every year. Some environmental organizations opposed genetic modification because of uncertainties about the long-term environmental impact of the new technology. The groups also claimed that farmers used more-dangerous agrochemicals in growing and harvesting genetically modified varieties.⁴

Other organizations involved in the RTRS discussions said genetically modified crops were too prevalent to ignore. If the RTRS shut the door on farms that used genetically modified varieties, more than half of soy farms would be ineligible for certification. Most members of the group said the initiative would have a greater impact if members accepted genetic modification and instead focused on other issues they considered more important, such as halting deforestation and improving conditions for farmworkers.

The RTRS members eventually decided that genetically modified soy would be allowable under their system. As a result, several activist groups denounced the roundtable and joined those protesting against the new system.

In 2007, the RTRS board set up a working group to discuss the criteria to be included in the standard. To drive the process, the RTRS hired Proforest, a United Kingdom–based not-for-profit organization that specialized in sustainable production and responsible sourcing and had helped design the palm oil standard for the RSPO, which launched its certification system in December 2007.

Increasingly concerned about the rapid conversion of forests to soy farms, the RTRS's NGO participants were eager to move forward with the key step of developing the group's certification standard. To speed up the process, Proforest proposed copying the RSPO standard—designed for palm oil plantations in Southeast Asia—and tailoring it to fit the needs of the South American soy industry. But farmers and industry groups in Brazil argued that the industries and regions were too different for the RSPO standard to be relevant, so working group members began the long process of negotiating criteria for the new standard from scratch.

Because of the difficulties involved in tracing certified soy from the farm where it was harvested through to the end user, the RTRS set up two systems

to reward sustainable production that did not require tracing certified soy through every step in the supply chain. One was called a mass-balance system, which required farms to sell their soybeans to RTRS-certified crushing plants. The certified plants could process uncertified soy and label a certain percentage of their output as certified equivalent to the amount of certified soybeans taken in.

The RTRS decided to focus most of its energies on a second approach, however. Under the second system, certified farms would be responsible for declaring how much soy they produced, and they would receive one “RTRS credit” for each metric ton. Sustainability-conscious companies could purchase the farms’ credits at a mutually agreed upon price. Under the system, purchasers of the credits could claim that they were supporting responsibly farmed soy but could not claim that the soy they used in their products came from certified farms.

Before trying to develop a market for those credits, the RTRS had to identify farmers willing to implement the agreed-upon standards and pay for certification audits. Certification systems often relied on pioneer farmers to launch the system and provide an example for others to follow. Several of the largest soy farmers in South America were RTRS members and were involved in the discussions of the group’s standards. Members hoped those farms, which employed dozens of staff with advanced agricultural training, would lead implementation of the new system. After those farms got on board, the focus could turn to smaller, family-owned farms, which often had only one or two employees.

GETTING DOWN TO WORK

To move ahead with the initiative, RTRS members had to finalize the standard and enlist pioneer farmers to lead implementation of the system. If all went well, certification would quickly spread throughout Brazil and the rest of the world.

Setting the standard

From 2007 to 2010, the working group wrestled with the pros and cons of the various criteria that would go into the standard. A burgeoning opposition movement complicated the time-consuming process of ironing out differences. “There were a lot of different protesters,” said Juliana Lopes, sustainability coordinator at Amaggi Group, who participated in the working group. “Some were against genetically modified crops, others were worried about how deforestation was addressed, and others were concerned for indigenous rights. The protests were actually helpful, because it forced us to go deep into some of the issues.”

Despite initial disagreements, RTRS members found points they could agree on. By 2008, the group had settled on five core principles for the standard: legal compliance, responsible labor conditions, responsible

community relations, environmental responsibility, and good agricultural practices. Throughout 2008 and 2009, the group decided on specific criteria within each core principle that farmers had to meet in order to earn certification. For example, one criterion was that farmers not use certain dangerous agrochemicals, and another required they keep detailed records on what agrochemicals they did use.

Most differences were resolved within the working group. “There was discussion, but we reached consensus,” said Wells, who stayed on as RTRS president after his employer, Banco Real, was acquired by Santander Bank in 2007. “In the end, the working conditions and agrochemical requirements were OK for everyone.”

One of the proposed requirements for environmental responsibility, however, polarized the group: Criterion 4.4 called for setting a firm date, May 2009, after which no forested areas could be converted for cultivating soy. Any farm that cleared trees to grow soy after that date would be ineligible for certification.

Aprosoja, the association of soy producers in Mato Grosso state, and Abiove, the Brazilian Association of Vegetable Oil Industries, pushed back hard and argued that the RTRS’s forest-protection criteria should not be more stringent than what was required by law. The associations stressed that if the NGOs and European buyers wanted Brazilian farmers to conserve more than what the law required, they would have to compensate farmers for doing so.⁵

Environmental groups, European soy buyers, and Wells were the strongest supporters of criterion 4.4. “I realized that if we did not have a cutoff date for deforestation and instead required only legal compliance, then the RTRS would die,” Wells stressed. “Why would a European importer require a seal that was basically just legal compliance and still allowed for deforestation? For the good of the RTRS, I had to fight to keep clause 4.4.”

Several members, including some companies and farmers that worked closely with the two associations, were caught between the two opposing sides. Those members were reluctant to exclude farms that demonstrated a commitment to responsible practices but also engaged in legally permitted deforestation, but could also understand that potential buyers of certified soy wanted a system that guaranteed a greater engagement with sustainability—and zero deforestation.

Aprosoja and Abiove held firm. “Those associations were very powerful, and they gave the impression that a large group of members were with them,” Wells said. “But when we took it to a vote, the vast majority of members agreed with having a cutoff date.”

Aprosoja left the roundtable in 2009, and after RTRS members approved the standard in June 2010, Abiove followed suit. The move soured relations between the RTRS and Brazilian farmers. “After Aprosoja left the RTRS, the producers became more skeptical about certification,” Chicarino

recalled. The two associations formed their own sustainability initiative, which they dubbed Soy Plus (see Text Box 2: The Soy Plus Program).

The split raised additional hurdles for the group. “Losing those two members put us at a great disadvantage in Brazil,” Wells said. “The RTRS was created basically to deal with soy in Mato Grosso. With the loss of those two members, we were unable to implement RTRS to a large degree in Mato Grosso. The single large exception was Amaggi.”

Textbox 2: The Soy Plus Program

After Abiove and Aprosoja left the RTRS, the two associations decided to launch their own sustainability initiative. Together they set up Soy Plus as a support program to help farmers in Mato Grosso meet legislative requirements. The program developed a checklist of indicators so that farmers could identify which laws they complied with and which they did not. At the time, legal compliance among farmers was poor—especially regarding labor laws. “The labor laws are difficult because the rules covering workers in a shopping center are the same rules covering field employees,” said Cid Sanches, who was with Aprosoja from 2007 to 2016. On farms, most employers took a more informal approach to working hours than the law demanded. “Sometimes, if it rains, the farmers go two or three days without working, but when the sun comes out, employees are allowed to work only eight hours,” Sanches said. “And sometimes you need to work more than that to get the harvest done.”

National and local regulations also demanded more formal procedures than most farmers could implement alone, and the Soy Plus program was able to help farmers implement new practices, according to Sanches. “For example, the government legislation said farmers have to have an emergency action plan in case of an accident,” he said. “But farmers did not know how to organize an emergency plan. So Aprosoja gave an emergency plan to each farmer: a big sign with the name and phone number of the local doctor, the location of keys for transporting someone who got injured, and other indicators.”

The Soy Plus program held workshops and explained to farmers what they had to do to comply with national and local legislations. Farms that volunteered to participate in the program and implement changes on their farms received visits from Soy Plus staffers, who went through the program’s checklist with them and advised farmers on how to comply with legislation.

The key difference between the Soy Plus program and RTRS certification—aside from the RTRS’s more-stringent requirements—was that Soy Plus did not compel farmers to implement the recommendations and did not monitor them for compliance. “Soy Plus is not obligatory,” said Sanches, who moved to the RTRS in 2016. “You help farmers improve their farms, but sometimes they don’t have the time or money to invest, or sometimes they don’t want to change too much. With RTRS it is different; you have to change and to organize your farm.”

As of 2016, the Soy Plus program had held 29 workshops and three field days in Mato Grosso state, reaching more than 5,000 farmers. Of those, about 600 had received on-site technical assistance from Aprosoja staff.

As of 2017, the program had expanded to Mato Grosso do Sul, Bahia, and Minas Gerais states; and Cindy Moreira, Abiove’s sustainability coordinator, said the association had plans to expand the program to three more states in 2018. Moreira added that participation in Soy Plus could serve as a “stepping-stone” toward RTRS certification. She stressed, however, that Abiove would not support RTRS certification until it offered greater financial benefits to farmers.

Implementing the standard on pioneer farms

After the standard was approved, Amaggi pushed ahead with its goal to become the first to earn RTRS certification. “We wanted to be the first to make it happen and show it was possible,” Lopes said. “So we implemented the RTRS standard right after it was approved.”

Amaggi, the family business of Mato Grosso’s governor Maggi, owned five large farms in the state and also bought soy from other farms there and in neighboring states. In 2005, the environmental action group Greenpeace had awarded Maggi its “Golden Chainsaw” award for being “the person who most contributed to Amazon destruction.”⁶

Although Greenpeace had targeted Maggi because of the pro-deforestation policies he had implemented as governor of Mato Grosso, Lopes said Greenpeace’s soy campaign also put the company under additional scrutiny by NGOs, consumers, and the media. She said the company wanted to communicate its commitment to sustainability to consumers in a better way, and RTRS certification could help it achieve that goal.

Amaggi decided to focus first on certifying its own farms, which had gotten a head start on meeting the certification standard. “The discussions took a very long time—it took almost five years to create the standard—so during the discussions we were already getting ideas and began implementing them on our farms,” she said. “The discussions were really making sense about a lot of things for us. For example, what could we do to contribute to the local community? There was a lot of things coming from these discussions that we started to implement even though we didn’t know if they would be in the standard or not.”

Amaggi decided to begin by getting two of its five farms certified. In 2007, one of the farms, Fazenda Tucunaré, had become the first soy farm in Brazil to earn certification from the International Organization for Standardization (ISO) for environmental management. The other farm, Fazenda Tanguro, was in the process of implementing that same certification.

The managers of the two farms ensured that they were fully compliant with the ISO standard as well as all relevant federal, state, and local laws. The work Amaggi’s staff had already done to maintain legal compliance helped prepare them for RTRS certification, according to Fabio Beltrame, one of the auditors that conducted the first RTRS audits. “We have a lot of laws here in Brazil,” Beltrame said. “Once the farmer complies with all the laws—like Amaggi’s farms do—they are 90% of the way to compliance with the standard.”

Amaggi hired the audit firm where Beltrame worked, Control Union, to audit Fazenda Tucunaré and Fazenda Tanguro. Both passed the audit and earned the RTRS’s first certifications in mid 2011.

Lopes said certification brought recognition for Amaggi’s employees and raised the company’s public image for its sustainability efforts. “For the

employees of those farms to know they were the first farms in the world to have international recognition, it was huge,” Lopes said. “It was good for our image, for our credibility, and for recognition.”

Getting Amaggi’s farms certified was a quick win for the RTRS. The whole certification process on Amaggi’s farms took less than one year from when the standard was approved. Before the standard was implemented, “There were a lot of question marks about whether it was achievable,” said Lopes. “We were able to prove that it was doable, and then it could spread to other farms.”

Recruiting smaller farms

After two of its own farms became certified, Amaggi sought certification for its outside suppliers. As part of its business model, Amaggi bought soy from about 4,000 other farmers in Mato Grosso and surrounding states. Working with those farmers was a much bigger challenge for the company because they did not have teams of university-trained agronomists, as Amaggi had on its own farms. “Amaggi’s farms already performed at a very high level,” said Aline Locks, general manager of Aliança da Terra, a Brazilian agricultural and environmental NGO that had participated in the RTRS discussions. “They didn’t look like your average Brazilian farm.”

In 2012, the Amaggi hired Aliança da Terra to help its suppliers achieve RTRS certification. The NGO had already developed a checklist tool it used to help farmers comply with Brazilian laws and meet higher levels of sustainability and farm performance. Aliança da Terra analysts adapted the checklist so they could use it to check for RTRS compliance.

The RTRS allowed farmers to be certified in groups, which reduced costs because audit fees could be shared. Certified groups had to have their own managers as well as internal auditors that would check each group member for compliance. In addition, each group had to hire an independent auditor to check internal audit reports and inspect a sample of the farms in the group.

Amaggi began putting a pilot group together, targeting farmers it thought would be most interested in the RTRS certification. “We tried to find farmers with a vision, ones who weren’t necessarily looking for a financial benefit but were looking to improve the management of their farms,” said Rafael Pereira, who worked with Lopes at Amaggi.

Amaggi recruited 40 of its supplier-farmers who were willing to work with Aliança da Terra to implement the RTRS requirements. “They were a varied group,” said Pereira. “Some of them had been supplying us for more than 30 years, and some of them had become clients only more recently. We had large farmers—with 10,000, 20,000, or 30,000 hectares—and small farmers, with just 500 to 700 hectares.”

Analysts from Aliança da Terra went through their checklists with the 40 farmers and put together action plans for them to reach the minimum

standards set by the RTRS. The analysts also took on the role of internal auditors. Locks said the farmers worked well with the NGO's analysts and followed the agreed-upon action plans, partly because they hoped they would earn a price premium for their soy after getting certified.

As well as the potential price premium, farmers were interested in the program because it could help them improve their legal compliance. Pereira said officials from the Ministry of Labor often inspected farms for compliance with labor laws and that many farmers had incurred fines. "Certification can help a lot in this regard, and the farmers saw it as a great benefit," Pereira said. "We help them comply, and then they have less risk of being fined."

Many violations stemmed from ignorance of the law rather than any attempt to evade legal requirements. "Part of our job was just informing the farmers what the law is," Locks said. "Often, farmers were not aware they did not comply with the law. It's difficult for farmers to find out the information they need from local authorities. For example, farmers need a license to have a fuel tank on their farm; they have to use a specific covering on it; and they have to comply with other rules, but many farmers have never heard of these laws."

The law also required farmers to keep a register of farm employees, to ensure workers were paid according to federal and local standards, and to license certain infrastructure, and equipment—for example, airplanes for spraying pesticides—with local authorities.

Many of the farmers benefited from the management practices they learned from the certification process. "One of the things RTRS requires is that farmers keep track of fuel . . . and try to reduce how much they use," said Pereira. "The majority of the farmers did not have any controls on their use of fuel, so by engaging with certification, they became able to reduce their costs. For the first time, they kept track of how much diesel they were using per hectare of soy they farm, and once they knew that, they were able to find ways to be more efficient in their use of fuel."

Certification also required activities such as accurate record keeping, which fell outside farmers' normal line of work. "Farmers don't like doing the more bureaucratic things," said Pereira. "They had to keep registers of who applied what product, when, and where. It took a lot of effort to comply with the record-keeping requirements."

When working with its farmer-suppliers, Amaggi decided to focus on the mass-balance system rather than the credit system. Because most soy buyers had little idea where the soy they bought originated, buying mass-balance certified soy could help them learn more about the supply chain. "Some of our clients did not want to buy credits; they wanted to know the flow of the soy" through the supply chain, Lopes said. "We wanted to offer both possibilities [credits and mass-balance certified soy] to fulfill that market demand."

To validate the mass-balance system, Amaggi hired auditors to certify that its crushing plants kept accurate records of how much certified soy they processed. “We already had a good system for tracking soy so that we did not run into problems with the tax inspectors,” said Pereira. “So we did not have to change anything; we just had to make sure our staff in the warehouse and factory understood the system.” Auditors checked the companies’ spreadsheets and receipts to verify dealings with certified farms.

For some of Amaggi’s farmer-suppliers, earning certification required substantial investments in infrastructure to improve the quality and safety of warehouses and fuel tanks and provide better housing for workers. Several farmers, unwilling to pay those costs, dropped out of the program.

Locks said the most common reason that farmers did not continue with Amaggi’s certification push was that they did not receive any financial benefit from staying with it. “When we got to the third year, they still had not received a bonus, so many of the farmers left the program,” she said. “They participate in the program voluntarily . . . so if they’re not getting a financial benefit from the certification, then they usually drop out.” After three years, only 20 of the original 40 farmers remained in the program.

Recruiting farmers through NGOs

To work with other farms not affiliated with large companies like Amaggi, the RTRS turned to local organizations that worked directly with farmers. Solidaridad Network, a Dutch NGO that had been actively involved in designing the RTRS standard, provided funding for projects through its Soy Fast Track Fund, which was financed by IDH, the Sustainable Trade Initiative, an organization jointly funded by the Dutch government and Dutch businesses. Launched in 2011, the fund provided financial help for 21 projects across Brazil, including Amaggi’s project with Aliança da Terra.

Another Soy Fast Track Fund project in Mato Grosso was a partnership between Friends of the Land Club–Sorriso (a small NGO known by its Portuguese acronym, CAT-Sorriso) and WWF France, the French chapter of WWF. With funding from WWF France and the Soy Fast Track Fund, CAT-Sorriso worked with farmers surrounding the city of Sorriso in northern Mato Grosso to achieve RTRS certification.

Cynthia Moleta, who launched the project in November 2013, said putting the partnership together was difficult because of distrust between farmers and environmental NGOs. The farmers’ close links to Aprosoja, which had dropped out of RTRS in the early dispute over forest-protection criteria, stifled progress. “At the time we started the project, Aprosoja was totally against certification,” said Moleta. “We tried to have meetings with community organizations to show the benefits of certification, but all we heard was a lot of criticism.” Farmers said the RTRS and other NGOs were trying to impose restrictions on their farms, and they did not trust NGO-led projects.

Unable to work with farmers' organizations, Moleta began approaching Sorriso farmers individually. "I noticed that when I spoke to the producers individually, they listened and were not so resistant," she said. "After all, the project offered only advantages to them. They had nothing to lose: they would receive everything for free—from technical assistance until the final audit." Moleta said she enjoyed some success by appealing to woman farmers and the wives of male farmers. "Women are much more open about sustainability issues," she said. Of the initial group of nine farmers who joined the project, three were women, and with the exception of two farmers who were on the board of CAT-Sorriso, "the others all entered the project because of their wives."

CAT-Sorriso followed similar procedures to those used by Aliança da Terra. Staff visited the farms to assess the strengths and weaknesses of each potential participant and determine what areas fell short of RTRS requirements. Taking that analysis into account, CAT-Sorriso staff developed an action plan for farmers to meet the requisite criteria and then checked back to ensure that farmers followed through.

The first group of nine farms, which collectively covered just over 20,000 hectares, earned certification in October 2015. Shortly thereafter, more farmers approached CAT-Sorriso and asked to join the project. Many expressed interest because of the offer of free technical assistance to help with legal compliance, Moleta said. As of 2017, 17 project participants had earned RTRS certification and 10 more were in the process of becoming certified, according to Moleta.

Integrating the supply chain

In 2015, Unilever, a multinational consumer goods company that had been one of the biggest purchasers of RTRS credits in the first four years of the program, decided to step up its efforts by also purchasing "physically certified" soy, as well as RTRS credits. In 2010, Paul Polman, the company's chief executive officer, had initiated a plan to source key ingredients the company used in its products from only sustainable sources by 2020. "For us, purchasing RTRS credits was the first step in transitioning our supply chain to sustainably sourced soy," said Giulia Stellari, Unilever's director of sustainable sourcing. "Our purchase of some of the first RTRS credits was an important step towards achieving our sustainable sourcing targets. However, wherever possible, we also seek to move to physically certified sources, through both mass balance and segregated volumes, which give us and our stakeholders the added assurance that the sustainably grown crops are in our supply chain."

At the time, there was no segregated RTRS-certified soy, which required soy traders to keep certified soy separate from uncertified soy throughout the supply chain, and only a tiny amount of mass-balance certified soy available. Aside from Amaggi, soy traders showed little interest in buying and selling

certified soy because few farmers were interested in getting certified, and few buyers were willing to pay a premium for the certified product.

Unilever envisioned a system where the entire soy supply chain, from the farmer to Unilever, could benefit from RTRS certification. For example, smaller farmers might gain from assistance to develop better cultivation practices or easier access to agricultural loans, even if no premium for sustainable soy was available.

To put that idea into practice, Unilever staff met with the team at Aliança da Terra and began building a partnership with representatives from Santander Bank, which provided loans to soy farmers; Yara, a Norwegian chemical company that was one of the world's largest fertilizer producers; Bayer, a German chemical company that sold seeds and herbicides to soy farmers; and Cargill, one of the biggest global soy traders. With funding from Unilever and the Soy Fast Track Fund, and support from the partner organizations, Aliança da Terra began leading project implementation.

"The idea was that each of the partners could provide a benefit for the farmers," said Locks. Bayer and Yara would provide technical assistance to farmers in the use of their products. Santander would provide access to loans. Cargill would buy from the farmers and hire an auditor to certify its crushing plant so it could sell mass-balance certified oil. And Unilever committed to buying the certified oil.

Bayer, Cargill, Santander, and Yara encouraged their customers in the two areas chosen to launch the project—Minas Gerais and Goiás, two states in the Cerrado biome—to participate. The companies involved benefited by earning new business from farmers brought to the program by one of the other partners, according to Chicarino of Santander.

Vitória Vasconcelos, an agronomist who worked on her father's 2,600 hectare farm in Goiás, said that her family was approached by Bayer, and that her father became interested in the project when he learned of the possibility to earn a price premium on certified soy. Vasconcelos's farm was one of 62 that joined the project.

Aliança da Terra used the same inspection and training process it had honed in the earlier projects to help the farmers meet RTRS standards. "They came here and analyzed the landscape and how we worked, and then made a list of all the adaptations we had to make," said Vasconcelos. "It was a step-by-step program: we had to do some things straight away and then we put a plan in place to meet other criteria in one year, or two years, or five years." An Aliança da Terra analyst visited each participant every year to check they were following the action plan.

In 2016, 38 of the farmers participating in the project received RTRS certification. Although most farmers joined the program because of the possibility of receiving a price premium, several found there were other benefits to being involved. "It was really helpful," said Vasconcelos. "The farm was not organized that well, and the program helped us get the basics

right. We began separating our trash and organizing our pesticides better—most farmers just never think about things like that.”

OVERCOMING OBSTACLES

Implementing the new system in Mato Grosso and other parts of Brazil soon ran into a hard obstacle: weak demand for certified soy. Most certified farms struggled to sell RTRS credits, and many farmers interested in certification chose not to follow through because there was no financial benefit to doing so.

Even when farms found buyers for their credits, the economic benefit was minimal. RTRS credits sold for about US\$1.50 to US\$4 each. The RTRS issued one credit for each metric ton of soy produced on certified farms, and it collected a fee of €0.30 (about US\$0.33 to US\$0.39, depending on the year) on each credit sold. From 2010 to 2016, a metric ton of soy was worth US\$300 to US\$600 on the global market, meaning that certified farms usually earned a premium of less than 1%. For most farmers, that premium was insufficient to cover the costs of becoming certified.

Because of its large size and close links to global markets, Amaggi was an exception. Companies looking to purchase large amounts of RTRS credits or certified soy found it easier to buy from Amaggi because they had more credits and mass-balance certified soy than anyone else, and it was easier to negotiate with one supplier than multiple farmers. In 2015, the company sold all of its credits and most of the certified soy its suppliers produced under the mass-balance system, according to Pereira. Amaggi opted to get a third farm certified and was able to pay a small premium to its 20 certified suppliers as well as 15 other suppliers that joined the program later. Those 35 farms (out of the approximately 4000 the company bought from), and three of the company’s own six farms (Amaggi acquired the sixth farm in 2012), were certified as of 2017. Pereira said that demand for RTRS credits waned after 2015, and in 2016, the company was only able to sell only 60% of its credits. As a result, the company had no immediate plans to scale up its certification efforts. “We will expand the amount we supply only if the demand for certified soy increases,” said Lopes.

Still, Amaggi’s decision to embrace RTRS certification made economic sense, according to Lopes. “We and the farmers made money from it, but it did not make us rich,” said Lopes. “That was not the main idea. . . . Certification is not a way to make a lot of money, but it is a way to be compensated for the work you did to get certified.”

Other soy-trading companies did not perceive demand as strong enough to ask their suppliers to earn certification, however. “This is a competitive industry, and we are a business,” said Stewart Lindsay, sustainability coordinator at Bunge. “If there was a demand for RTRS certification, we would do it . . . but few of our customers have even asked about it.”

Part of the reason for lack of demand for certified soy was that people usually did not know—nor did they want to know—that products they consumed contained soy. For that reason, firms that bought RTRS credits or mass-balance certified soy typically chose not to market their products with responsible-soy labels.

Certification seals for commodities like coffee and tea—which consumers consumed directly—could provide marketing benefits for companies that invested in certification, but that seemed not to be the case for soy and other hidden commodities. “The key problem is that no one buys soy for [direct] human consumption,” said João Shimada of the Earth Innovation Institute, a United States–incorporated NGO that worked mostly in Brazil. “It is a hidden product.” Unable to capture benefits from selling the certified product, many companies just weren’t interested in covering the expense of certification.

European firms bought nearly all of the RTRS credits that were sold. China, which overtook Europe as the largest importer of soy from Brazil shortly after the RTRS was launched, stayed out of the market. As of 2017, there were no Chinese buyers of certified soy. “It is very hard to influence the Chinese market,” said Isabela Vitali of Proforest.

Even in Europe, demand for certified soy fell short of expectations. “It is disappointing,” said Wells of Santander. “Europe just hasn’t demanded what it should have. And the farmers are right. Why should they go through all this if they don’t get a premium?”

The RTRS continued to wrestle with the problem of weak demand, with no clear solutions in sight as of mid 2017.

ASSESSING RESULTS

As of 2017, several dozen farms and groups of farmers in Brazil, as well as Argentina, India, and Paraguay, had earned RTRS certification. Collectively, those farms represented only a miniscule slice of the global soy industry. As a result, the initiative had little impact on its original goal of transforming the soy industry and reducing deforestation in Brazil.

From 2005—when the organizations that went on to form the RTRS met in Iguazu Falls—through 2012, the deforestation rate in the Brazilian Amazon rainforest fell dramatically. Most observers, however, put the achievement down to increased enforcement from IBAMA, Brazil’s environmental protection agency. (See ISS case study: [A Credible Commitment: Reducing Deforestation in the Brazilian Amazon, 2003–2012](#)) The expansion of soy farms caused only a small fraction of total rainforest destruction after 2006—mostly because of the effectiveness of the Amazon soy moratorium.⁷

In other biomes, like the Cerrado, conversion of natural vegetation to cropland continued unabated. Most of the conversion was legal. According to a 2016 report from Agroicone, a São Paulo-based agriculture-focused

research group, most of the new conversion to soy was occurring in the northern and northeastern states of Maranhão, Tocantins, Piauí, and Bahia, as well as Mato Grosso, indicating that the deforestation problem was spreading to new frontiers. The same report said that about 55%—or 111 million hectares—of the Cerrado remained as natural vegetation. Much of that could be cleared legally if farmers decided to keep only 20% of their properties in natural vegetation, as the law required.⁸

Although less than 1% of Brazilian soy farmers earned RTRS certification, proponents of the system said it had a wider impact than the small number of certified farms suggested. “Even if some producers can’t get certified, they might look at their neighbors and copy them,” said Lopes of Amaggi. “You can’t implement it with 100% of the producers, but you can use it as a guide to work toward.”

Farmers who chose to participate in the RTRS certification system rarely profited financially from opting into the system but received certain benefits such as better relations with local communities, improved employee satisfaction, and better compliance with federal and local laws. “Certification helps farmers manage their farms,” Locks said. “The laws are already very strict on social issues, and the certification process can help farmers meet legal requirements—for example, that all of their employees are properly registered, that all workers’ children attend school, and that all working hours get recorded properly.”

Most observers agreed that the system had not saved any forested areas from being converted to farms, however. “All of the farms that earned certification are in regions with long histories of agriculture; they are not near the deforestation frontier,” said Locks. “Maybe if the certification was enforced in the frontier regions and certification provided an economic benefit to conserve forests, it could have an effect.”

Although some farms and companies had experimented with selling certified soy through the mass-balance system, almost all RTRS-certified soy was sold using the credit system and was not traced through the supply chain. Part of the reason for that was the difficulty in mapping the soy supply chain. Laura Jungmann, the manager of product sustainability at Ahold Delhaize, a Dutch multinational retailer, said the firm could only estimate how much soy was embedded in its products. According to Jungmann, the retailer (or its suppliers) would have to purchase about US\$300,000 of RTRS credits annually to cover the full estimated amount of South American soy used in production of the raw meat, eggs, and dairy products it sold under its own brand names in its European stores. As of July 2017 the firm had purchased about 40,000 RTRS credits. Jungmann said she expected that number to increase as the retailer improved its monitoring tools.

The biggest hurdle for the RTRS was lack of demand for certified soy. More than three-quarters of global soy production went to animal feed—a market in which certification meant little because connection with the final

product was difficult to establish. “The animal feed industry is not susceptible to public pressure to purchase certified soy from civil society groups,” said Jan Maarten Dros of Solidaridad Network.

For many other commodities, like coffee, consumers could make a direct link between their consumption and the crop. But only a tiny percentage of soy was used in products that were specifically promoted as soy based, such as soy milk and certain meat-alternative products. Consumers were unlikely to demand certification for products they did not associate with soy. “A tray of eggs with a soy certification would just confuse customers,” Vitali said.

Because the main drivers of the industry had no close links to consumers, environmental NGOs were hard-pressed to build a consumer-oriented market for products made from certified soy. Few consumers made the connection between soy, forests, and their purchasing decisions.

REFLECTIONS

Although the Roundtable on Responsible Soy (RTRS) produced little success in terms of the usual metrics, members of the organization said the organization served a valuable function by establishing the need for sustainability in the soy supply chain and providing a forum for farmers, buyers, and sellers to communicate their distinct perspectives. The RTRS was an important follow-up to campaigns by environmental NGOs that had stimulated global interest in soy and deforestation in Brazil.

“It was like making lemonade from lemons,” said Juliana Lopes, sustainability director of Amaggi Group, an early RTRS participant that, like many large soy companies, had come under pressure from NGOs, consumers, and the media in the early 2000s. “Before that there had been no forum for discussions about sustainability between the private sector and NGOs in the soy sector. We started to work with the NGOs so we could understand their points of view and so they could understand what we were doing and what we could do better. It helped us create a movement to discuss and try to understand different points of view.”

But as of 2017, less than 1% of Brazilian soy was RTRS certified, and the future of the roundtable remained unclear. Almost all of the certified farms in Brazil had received financing from Solidaridad Network’s IDH-funded Soy Fast Track Fund to cover audit fees and other costs, and the NGO closed that fund in 2016.

While donor funding had helped the first movers earn RTRS certification, there was uncertainty about where such support would come from in the future—or whether it would be available at all. “All of the RTRS projects led by Aliança da Terra were subsidized by IDH and Solidaridad,” said Aline Locks, general manager of Aliança da Terra, which helped trained many of the Brazilian farmers who went on to become certified. “The funds have now dried up. Without a doubt there is going to be a decline in the

number of certified farms because the market is not willing to take on the costs the subsidies paid for.”

Certified farmers had to pay annual audit fees to third-party auditors to maintain their certification, and if global demand for certified soy failed to rise, most farmers would be unable to cover those costs. “If you have a group of 10 farms, for example, you have to pay an audit company about US\$30,000,” said Locks. “For each credit you sell, you pay a fee of €0.30 [to the RTRS]. We used to be able to sell the credits for US\$3 each, but now we can get only US\$1.50. I think interest has waned and also that because of all of the subsidies, there is greater supply than demand.”

The RTRS certification system struggled to move beyond a niche market. Part of the reason was that, from when it was first conceived, the organization had a strained relationship with farmers. “About 90 or 95% of producers thought the standard was something the NGOs were trying to impose,” said Guillermo Terol, who worked for Desarrollo Agrícola del Paraguay, a major Paraguayan soy grower, during the early RTRS discussions. The split between farmers and NGOs deepened when Abiove and Aprosoja left the organization, and for the most part, the wounds never healed.

Another reason farmers did not adopt the RTRS system was that other organizations had created rival soy certification systems for soy. Other NGO-led certification systems for soy included EcoSocial, International Sustainability and Carbon Certification, ProTerra, non-genetically-modified soy, and organic soy. Further, several soy-trading companies had set up their own systems. All of the systems competed to capture the small number of farmers willing to certify and the small number of buyers willing to purchase certified soy.

Combined, all of the certification systems covered only a small percentage of the global soy market. Many of the NGOs involved with the RTRS had begun looking beyond certification for other solutions that could work to reduce deforestation and improve sustainability in the soy industry.

Two significant challenges confronted those who hoped to expand the certification movement. First, the Brazilian government had to enforce its agricultural laws more effectively. Second, any realistic system had to place a meaningful value on land that was forested or in some other natural state.

Most farmers in Brazil did not comply with all relevant legislation—especially with regard to the licensing of on-farm infrastructure and labor laws. Farmers said that complying with the law was often the most expensive and difficult aspect in becoming RTRS certified. But at the same time, becoming legally compliant was a major enticement for farmers to earn certification, because it reduced the chances of their being fined for violations. Increased enforcement could provide an incentive for more farmers to pursue certification.

The Brazilian government, however, struggled to enforce even egregious rule breaking. IBAMA, Brazil’s environmental protection agency, published

blacklists of farms linked to illegal deforestation, and the Ministry of Labor published blacklists of farms linked to employing slave labor. It was illegal for firms to purchase products from blacklisted farms. But farmers often found ways around the system. “Today farmers in blacklisted areas still sell their products,” said Locks. “If they can’t sell to one trader, then they just find another to sell to.”

In the Cerrado region, farmers could still legally clear millions more hectares of the savanna. Persuading farmers to conserve more natural vegetation than the law required would be difficult without financial incentives. Harry van der Vliet of Solidaridad Network said the battle to save that natural vegetation had already been lost. “Legally, Brazilians are entitled to convert forests into cropland,” he said. “They have to leave only 20% as natural vegetation [in the Cerrado]. If you’re a farmer in Bahia and you have 1,000 hectares, you’re legally allowed to deforest 800 hectares of that. That is Brazilian law, and it’s very difficult to convince the farmer not to go ahead and do that. . . . Brazilian farmers just won’t do it. Each hectare yields about \$1,300 in gross sales. After costs of about \$800, that leaves farmers with about \$500 in profits per hectare each year.”

Some observers said the forests could be saved if a complementary system to certification compensated farmers for conservation. “As long as forests are not worth anything, the problem will persist,” Locks stressed. “The driver of deforestation is purely economic incentives. Deforested land is worth 7 or 8—up to 10—times as much as forested areas. We need a way to value the forests that farmers conserve.”

¹ *Eating Up the Amazon*. Greenpeace International, April 2006;

<http://www.greenpeace.org/usa/research/eating-up-the-amazon/>

² *Cerrado Ecosystem Profile Summary*. Critical Ecosystem Partnership Fund. Conservation International, 2011; <http://www.cepf.net/SiteCollectionDocuments/cerrado/CEPF-Cerrado-EcosystemProfileSummary-EN.pdf>

³ Alexei Barrionuevo, “President Luiz Inácio Lula da Silva Trumpets Brazil’s Potential in Agriculture.” *New York Times*, September 23, 2007;

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⁵ Carlo Lovatelli, President of Abiove, “Desligamento do RTRS,” letter to Jeroen Douglas, President, Roundtable on Responsible Soy, March 31, 2010.

⁶ “Soya King’ Wins Golden Chainsaw Award.” *Greenpeace International*, June 19, 2005;

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⁷ H. K. Gibbs, L. Rausch, J. Munger, et al.. “Brazil’s Soy Moratorium.” *Science*. American Association for the Advancement of Science, 347:6220, 377-378, January 23, 2015;

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