



PROFOR

SOYBEANS IN THE AMAZON AND THE CASE OF THE BRAZILIAN SOY MORATORIUM¹

Highlights

- The Brazilian Soy Moratorium (BSM) is an agreement among trading companies, international and national nongovernmental organizations, retailers, and banks to not purchase or finance soy grown in the Amazon biome of Brazil in fields that were deforested after 2008.
- BSM has contributed only modestly to the 70% decline in deforestation in the Amazon biome below average rate, and has met resistance from soy farmers.
- From the perspective of corporate risk management, the BSM is arguably the world's most successful value chain intervention to date for addressing tropical deforestation.
- Because of the abundance of suitable cattle pastures for conversion to soy, Amazon soy expansion has not been suppressed by the BSM. Market leakage is therefore unlikely.
- In Brazil, where agroindustry provides one-fourth of the gross domestic product and is represented by the largest political block in Congress, support from farmers and agri-businesses for forest conservation is critical.
- The Mato Grosso Produce, Conserve, Include (PCI) Strategy is a good example of a jurisdictional, state-wide strategy that has succeeded in bringing farm sector leaders to the table.
- Through the PCI, a common vision for the future of Mato Grosso was forged, including state-wide zero net deforestation and social inclusion.

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Introduction

Soy is the most productive vegetable protein and the most important ingredient in animal feed. Global demand for soy will continue to rise as economic growth leads to greater protein consumption in emerging economies. This trend is currently led by China, whose annual imports of soy are approximately 100 million tons or 29% of global production.² In 2016, more than 50% of China's imports came from Brazil. Possible trade tariffs on U.S. soybean, coupled with the high protein content of Brazilian soybean, could significantly increase the Chinese demand for Brazilian soybean. This growth in demand presents a significant threat to native ecosystems in seasonally-dry regions of the tropics and sub-tropics where most expansion of soybean cultivation is taking place.

This is the global context of the Brazilian Soy Moratorium (BSM). The BSM is an agreement among trading companies, international and national nongovernmental organizations, retailers, and banks to not purchase or finance soy grown in the Amazon biome of Brazil in fields that were deforested after 2008. Participating soy traders purchase roughly 80% to 90% of the Amazon region's crop. Although it has no authority to enforce the agreement, the Ministry of Environment supports the BSM.

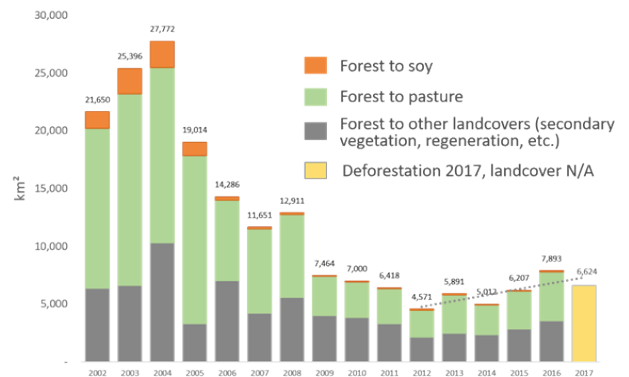
Decline of Deforestation in the Brazilian Amazon

It is important to review the causes of the 70% decline in the rate of forest clearing in the Brazilian Amazon to understand BSM's contribution³ (Figure 1). Deforestation decelerated through a complicated array of governmental measures and technological advances that increased the risks to farmers and companies of engaging in deforestation in the Amazon region while reducing the need for new deforestation. These measures ranged from sting operations against land and forest crime rings, suspension of farmer access to public credit in municípios with high deforestation rates, and a 68% increase in the area of forests under formal protection. There was also an abundance of cleared land available for new soybean cultivation when the BSM was launched in 2005. Neither cattle operators nor the soybean sector needed deforestation to increase production. This diminished demand for new deforestation was reinforced by increases in cattle productivity and a decline in the profitability of soy production in Brazil. As a result of these initiatives and abundant cleared land, this case study estimates the BSM contribution to the regional slowdown in deforestation to be quite modest.

Today, deforestation rates are again on the rise in the Brazilian Amazon as the largely punitive and restrictive measures that were put in place by the Brazilian Government to suppress deforestation lose their

effectiveness (Figure 1). Ominously, the preponderance of punitive measures to slow Amazon forest clearing—including the BSM—may be contributing to a growing opposition to these measures by the powerful farm sector. There is an urgent need to recognize and reward responsible, conservation-minded farmers, winning their support for strategies to slow deforestation.

FIGURE 1: ANNUAL DEFORESTATION IN THE BRAZILIAN AMAZON, 2002–2017



Estimations by Earth Innovation Institute using spatially explicit data from Prodes, TerraClass, LAPIG and IBGE Brazil Grassland areas projected for 2014-2016

Figures on soy 2012 onwards by AgroSatellite and Soy Moratorium report

BSM Impact and Limitations

Assessment of BSM success and impact depends upon the perspective from which one approaches the assessment. From the perspective of corporate risk management, the BSM is arguably the world's most successful value chain intervention to date for addressing tropical deforestation. From the perspective of regional trends in deforestation, the BSM is a singularly poignant illustration of the lesson that value chain interventions are important to solving tropical deforestation regionally, but alone are insufficient. Further, the high profitability of soy production relative to cattle operations on suitable Amazon soils has pushed land prices upward and provided new sources of capital to cattle ranchers who sell or rent their land to soy producers.

The success of the BSM can be traced to six factors. First, an effective campaign by Greenpeace elevated the risk for companies that sourced soybeans from the Amazon biome. Second, the BSM offered low opportunity costs to farmers because of both a viable option for soy expansion without deforestation, onto cattle pastures with low productivity, and the small number of farmers who lost their legal right to clear forests on their farms through the BSM. Third, BSM had a corporate champion, Grupo Amaggi, which had a previous loan with the International Finance Corporation (IFC) that contained conditionalities to combat deforestation. Fourth, the BSM contained rules that were simple and easy to verify. Fifth and finally, the BSM had effective monitoring systems that built on Brazil's official system for monitoring Amazon deforestation, PRODES, for determining compliance.

² Per capita meat consumption in China is still far lower than in the US.

³ Reviewed in Nepstad et al. 2014. Slowing Amazon deforestation through public policy and interventions in beef and soy supply chains. *Science* 344: 1118-1123.



Leakage Associated with the BSM

Market leakage occurs when a regional strategy to slow deforestation suppresses production of a commodity, drives up prices, and stimulates more deforestation in another region. Because of the abundance of suitable cattle pastures for conversion to soy, Amazon soy expansion has not been suppressed by the BSM. Market leakage is therefore unlikely. However, although their impact is not quantified and their motives for moving are unknown, some Brazilian soy producers are moving to the Cerrado region of Brazil and to Bolivia.

Replication of the BSM in the Cerrado Woodland

A Cerrado soy moratorium in Brazil will be far more difficult to implement than the BSM for three reasons. First, there is a large amount of native Cerrado on private farms that can be legally cleared relative to farms in the Amazon biome. The opportunity costs of a Cerrado soy moratorium are therefore much higher, which explains the high level of concern among farm sector leaders that a Cerrado moratorium is being

planned. Second, it is far more difficult to reliably monitor the clearing of Cerrado woodland and savanna than it is to monitor clearing of Amazon forests. Third, unlike the Amazon region where only a tenth of Brazil's soybean is produced, soybean production in the Cerrado is more than 60% of the national total. Soybean production in Cerrado is growing rapidly in regions such as MATOPIBA, which includes areas in Maranhão, Tocantins, Piauí, and Bahia states.

The findings of this case study provide a cautionary note to those who assume that farmer support for the BSM or a similar measure in the Cerrado region is not essential. Powerful farm sector organizations, especially Aprosoja, do not support the BSM because it imposes restrictions on what soy producers are allowed to do on their private farms. BSM restrictions are above and beyond the Forest Code restrictions. These restrictions were imposed without a mechanism for compensating farmers for the opportunity costs of foregone soy production. Aprosoja did not actively fight the BSM because the number of soy farmers with forest in excess of the Forest Code Legal Reserve requirement was low. In the Cerrado, Aprosoja is far more likely to actively oppose any efforts to replicate the BSM.

Engagement as a Key to BSM Success

The success of value-chain strategies in addressing deforestation caused by the expansion of commodity production will depend upon whether these strategies can win the support of responsible, conservation-minded farmers and businesses. In Brazil, where agroindustry provides one-fourth of the gross domestic product and is represented by the largest political block in Congress, support from farmers and businesses is critical.

Opportunities to win the support of progressive farmers and businesses include: (a) developing incentive mechanisms that recognize and reward responsible, conservation-minded farmers and agribusinesses; (b) supporting farm sectors to address issues that are of great importance to farmers such as the burden of excessive red tape for farm licenses and permits and inadequate transportation infrastructure; and (c) better consultation through effective engagement with farm sector leaders in discussions to develop deforestation strategies.

The Mato Grosso Produce, Conserve, Include (PCI) Strategy is a good example of a jurisdictional, state-wide strategy that has succeeded in bringing farm sector leaders to the table. Farm leaders contributed to and endorsed the state-wide goals for addressing deforestation, legal compliance with the Forest Code, and a pathway to state-wide zero net deforestation and forest carbon emissions. These goals are accompanied by a set of targets for expanding soy production and increasing the productivity of cattle pastures. Social movements support the PCI as its goals aim to improve the livelihoods of smallholders in agrarian reform settlements. Further, the concerns of indigenous people are now being brought into the PCI.

The success of the PCI will depend upon a different type of corporate engagement—one that moves beyond corporate risk management to focus on solving tropical deforestation and other dimensions of sustainable development regionally. Some companies are already leading the way to sustainable sourcing strategies that feature partnerships with farmers and local governments as the best way to translate pledges to remove deforestation from their supply chains into positive regional impacts.

The success of the PCI and similar initiatives will be enhanced through a unified global framework for addressing tropical deforestation that can be owned by regional governments and farm sectors and that can be built into public policies and programs. Sustainable soy sourcing agreements under negotiation between the Mato Grosso farm sector and the EU animal feed federation, FEFAC, are just one opportunity to achieve this framework.

Recommendations

Multilateral and bilateral donors can build upon previous investments to engage with key sectors of the soy supply and value chains from producers to markets. For example, the IFC loan to Grupo Amaggi was an important contributor to the success of the BSM by setting precedent and creating a corporate champion. Further, multilateral and bilateral donors can help to define success in addressing deforestation challenges and to identify measurements for meaningful progress on a jurisdictional scale.

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