Exploring Brazilian soy supply chains for the Amsterdam Declarations' signatories

Brazilian soy constitutes an important part of the overall deforestation footprint linked to agricultural imports of European countries. Per ton of imported soy, these countries have been exposed to a higher deforestation risk than China. To date, the complexity of supply chains has made it difficult to monitor and address this issue. Using a new approach, Trase makes it possible to identify the origin and the quantities of soy traded in the supply chain to show where the risks lie – critical information for the countries that have signed the Amsterdam Declarations for deforestation-free trade.

Background

The two Amsterdam Declarations were signed in 2015 by seven European countries (Denmark, France, Italy, Netherlands, Norway, Germany, United Kingdom), who agreed to support initiatives to eliminate deforestation from key supply chains (including palm oil, soybean, beef, paper, and timber) by 2020. These countries, alongside Spain, are the main importers of soy into Europe. To fulfill these commitments, they need to identify whether their imports are linked to areas where forests are at risk.

Findings

The Amsterdam Declarations' signatories have imported around 9 million tons of Brazilian soy per year since 2010. This comes from approximately 2.5 million hectares of land; an area almost the size of Belgium, spread across more than 1,200 Brazilian municipalities.

Half of this soy came from fewer than 50 municipalities in 2015, with five, Campo Novo Do Parecis, Sapezal, Sao Desiderio, Campos De Julio and Sorriso supplying more than 15% of the total. These strong supply chain connections show the role European buying countries play in shaping development trajectories in these regions.

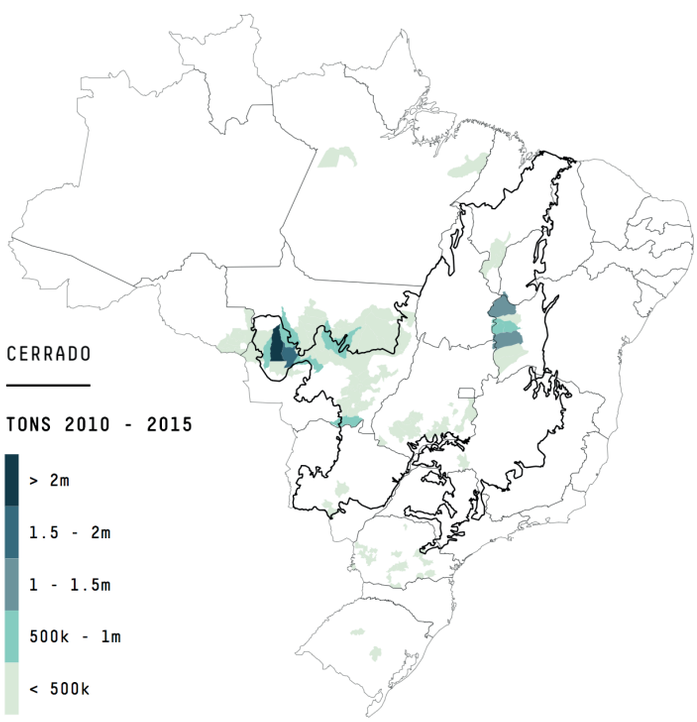

FIGURE 1 Soy-sourcing map for Brazil of the Amsterdam Declarations signatories. Top 100 municipalities, 2010-2015 cumulative data.

Many of these key sourcing regions are in the Cerrado, one of the world's most biodiverse savannahs (Figure 1). Exposure to deforestation risk across all of the municipalities that supplied Declaration countries between 2010 and 2015 peaked between 2012 and 2013 and returned to levels similar to the start of the decade (Figure 2, overleaf)[1]. Compared with China - the world's largest consumer of Brazilian soy – the overall deforestation risk is lower for Amsterdam Declaration countries in recent years (Figure 2 bar chart), as they consume less of Brazil's soy. But per imported ton, the embedded deforestation is higher than that for China (Figure 2 lines). This suggests signatory countries are sourcing from relatively high deforestation regions. In

[1] Deforestation risk is calculated as the weighted sum of the soy-associated deforestation per sourcing municipality.

FIGURE 2 Deforestation-risk attributable to soy expansion in source municipalities for Amsterdam Declarations signatories, and compared to Chinese and EU28 risk. Total risk is presented in bar format, in units of hectares. Risk per tonne is shown by lines.

comparison with the EU as a whole, though, deforestation risk per ton is lower for Declaration countries. Risk-based analysis applied across the entire Brazilian soy supply chain can show how supply-chain connections can be identified and targeted for further investigation. This could motivate partnerships and drive investments by Amsterdam Declaration signatories to improve the sustainability of soy production in their sourcing regions.

This analysis indicates that deforestation-risk exposure for signatory countries was not decreasing prior to the Declarations. It remains to be seen whether this will change now that the Amsterdam Declarations are in place. Trase time-series data can help assess this and highlight potential leakage effects that might occur with shifts in sourcing patterns. For more information on data, sources and methods, visit www.trase.earth.

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