Ambassador's word

Dear friends,

This edition of AgriSustainability Matters focuses on the fight against illegal deforestation in Brazil and the role that private stakeholders could increasingly play on that front.

Brazilian environmental legislation is widely regarded as being modern and robust. Our Forest Code is arguably the most stringent in the world. Of course, there always is room for further improvement – not least in terms of enforcement. The vastness of the Brazilian territory poses major challenges, calling for ever-adapting approaches. Over the past year or so, operations Verde Brasil, or Green Brazil, have ramped up enforcement activities in the Amazon region. Thousands of military personnel, police, environmental officers and fire fighters have been deployed to combat illegal logging, mining and other unlawful practices. This is an essential dimension of the struggle to halt illegal deforestation.

But many also point to the fact that there is scope for further action on the part of supply chain actors. This is the kernel of the piece that we bring you this time around.

In their thought-provoking article, professor Marcos Jank and researcher Niels Søendergaard, both from the São Paulo-based Institute of Education and Research (Insper), offer their own perspective on additional actions that the private sector might undertake. They explore several options, ranging from payments for environmental services to the sustainable intensification of cattle herding. The authors are important voices in what is today a lively debate in Brazil, one that is definitely worth following.

Enjoy the reading.

Now as ever, AgriSustainability Matters.

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Private sector initiatives in the Brazilian agri-food sector to halt Amazon deforestation

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In recent decades, Brazilian agricultural production has been growing at an accelerated pace. The country has not only been able to meet an increasing internal food demand but has also become an important global agricultural exporter. While the past decades have been marked by the goals of increasing yields and exports, consolidating the country's position as a global player in food production, today Brazil will have to face new challenges, particularly in relation to sustainability. The most important one is addressing climate change by halting illegal deforestation in the Amazon.

The soy and beef sectors are in a key position to engage with this challenge. Previous interventions within these supply chains through multi-stakeholder agreements have had significant effects on curbing deforestation. Drawing on past experiences to address current spikes in Amazon deforestation could therefore be part of a solution to this problem. In this short contribution, we seek to provide answers on how private sector initiatives in the soy and beef sectors can support conservation of the Amazon.

Covering an area of 35 million hectares (up from 13 million hectares in 2000), soybean production strongly impacts land-use change in Brazil. Adapted to tropical conditions in the 1970s, by the early 2000s soybeans had expanded to the Northern region of the country. Concerns about its impact on the Amazon biome led to the establishment of the Soy Moratorium in 2006, backed by retailers, traders and civil society stakeholders. Through this, supply chain actors committed themselves not to buy soy from areas deforested within the Amazon after this date. The Soy Moratorium had a significant effect in decoupling soy expansion from Amazon deforestation, as soy by 2014 accounted for less than 1% of the conversion of native vegetation in this biome (Gibbs et al. 2015).

Private sector interventions will necessarily have to rely on a baseline of public regulatory engagement. Yet, as the Soy Moratorium shows, initiatives from supply chain stakeholders can still play a central part in a multifaceted strategy to address deforestation. Soy traders have already engaged with suppliers to provide deforestation-free products, and also adopted private certification schemes for this purpose. But private certification does not provide an effective short-term solution, as demand for certified soy unfortunately constitutes only a limited share of total market uptake – even in the EU.

Payments for environmental services (PSA) could become important to bend economic incentives towards conservation and sustainable land management. Currently, the lack of distribution of costs along the soy chain means that these often fall disproportionately upon producers. The Brazilian Forest Code already implies a system for environmental legal forest reserves and mechanisms for monetary compensation for the preservation of lands that could otherwise be legally deforested. Estimates suggest an annual price of US$ 77-123 per hectare for conservation, which could be incorporated into a type of cap-and-trade scheme, or through REDD+ mechanisms (Stabile et al. 2020). Payments for environmental services could then rely on either public or private compensation programmes to cover conservation costs. This is a particularly relevant option on lands where native vegetation retains large amounts of CO2, and where soils are relatively unfit for agriculture, as it often is the case with the Amazon biome.

The livestock sector presents a more complex picture. Historically, cattle herding has provided a simple source of income in desolate regions, but it has also been a means to lay claims to illegally deforested lands, contributing to spiking deforestation rates in the early 2000s. In 2009, this led the Federal Public Prosecutor to sign a document called Terms for Conduct Adjustment (Termos de Ajuste de Conduta – TAC) with the main slaughterhouses — the so-called G-4 —, by which the latter committed themselves not to buy cattle raised in illegally deforested areas. In the same year, a multi-stakeholder agreement between slaughterhouses and civil society organizations was made, aiming to ensure the sustainable origins of beef products through traceability systems. These measures were highly effective in changing slaughterhouses' acquisitions, as the number of supplying properties registering recent deforestation fell from 26% in 2009 to 4% in 2013 (Gibbs et al. 2016, p.36). Monitoring of the agreement was based on satellite images cross-referenced with property-level data on vegetation type to detect deforestation. As a result, the role of cattle herding as a driver of deforestation fell from close to 2 million hectares annually in 2001-2005, to around 0.5 million hectares per year from 2010 (Seymor & Harris, 2019, p.757).

Despite some important successes in reducing deforestation, further interventions in the beef sector are still necessary. Current initiatives comprise measures to ensure traceability, sustainable intensification, targeting of smallholders and payment for environmental services. On the level of traceability, existing systems are already available, such as the Livestock Transportation Form (GTA), which tracks the movements of animals for sanitary control; the Rural Environmental Registry (CAR) which registers properties´ compliance with native vegetation requirements; and the National Service for Traceability of the Beef Cattle Production Chain (SISBOV), which tracks individual animals to comply with sanitary requirements for exports. While, individually, none of these systems are completely fit to ensure monitoring of the cattle supply chain, integrating data from these different sources can provide important information. Sector-wide and mandatory systems are essential to avoid a situation with parallel regulated and unregulated supply chains, which would do little to combat the overarching challenge of curbing Amazon deforestation.

By attenuating pressure for land clearances on native vegetation through productivity increases, sustainable intensification of cattle herding can also leave areas open to reforestation projects. Of the lands deforested in the Amazon from 1988-2014, only 14% have been converted into more productive operations. Different production models based on agroforestry projects, agriculture and livestock integration, as well as pasture restoration, have demonstrated a high potential for carbon sequestration and biodiversity conservation, while also raising producers' productivity and income. Many sustainable production models have been developed in recent decades which contain the potential for increasing conservation while improving regional social indicators. The main challenge for sustainable intensification concerns the scaling of these production models amongst large and medium-sized producers, and the provision of credit and technical know-how for smallholders.

"Combining sustainable intensification with the provision of environmental services through increased conservation and reforestation of degraded pastures could thereby become important pillars of the future livestock production in the Amazon biome."

In line with the goals of sustainable intensification, targeting small and medium-sized producers also becomes important. Access to credit and knowledge of modern production practices is important for smallholders to abandon ineffective and environmentally harmful modes of production relying on slash-and-burn practices. Interventions aimed at the provision of credit and technical expertise can help break this cycle. Studies show how such measures can raise annual household income and reduce deforestation rates as much as 79% (Stabile et al. 2020, p.4).

Payments for environmental services could also help create incentives to improve the sustainability performance of Brazilian livestock production in the Amazon. While illegal land grabbing of public territory needs to be met through efficient control mechanisms, the preservation of territory which could otherwise be legally deforested could be achieved through payments for the conservation of native vegetation. As it is the case with the soy sector, actors upstream in the supply chain have often eschewed preservation costs. A more equal distribution of these costs amongst supply chain stakeholders could change existing incentives to deforest and help promote a future bioeconomy. Different certifications for beef have been developed and could ensure the cost transfer to consumers downstream although there are currently very few of them. As it was the case with soy producers, the Brazilian Forest Code also contains provisions for ranchers to monetize the ecosystem services provided by environmental reserves exceeding legal requirements. Combining sustainable intensification with the provision of environmental services through increased conservation and reforestation of degraded pastures could thereby become important pillars of the future livestock production in the Amazon biome.

Finally, it is important to highlight the crucial role of public legislation as an essential backdrop for private initiatives. Voluntary regulation and standards should accordingly neither compete nor seek to substitute public regulation, but rather build on the existing legal frameworks. Brazilian law contains a wide range of important environmental provisions, and their effective implementation through command-and-control mechanisms is a clear public responsibility. As the brunt of Amazon deforestation is conducted by actors not often associated with the Brazilian agricultural and livestock sector, such as illegal loggers and miners and land speculators seeking fraudulent land tenure, strict legislative implementation is key to defend the sector's international image. Thus, the global brand of Brazilian agribusiness ultimately hinges on transparent and consistent demonstration of compliance with the country's environmental legislation.

"A strategic and long-term engagement with socio-environmental demands is therefore imperative to guarantee that Brazilian agri-food exports remain associated with quality in terms of both product features and processes."

In sum, sustainability-related demands have become an integral and unavoidable point within the agenda for agricultural production, trade and consumption. Neglecting these challenges would not only tarnish the international image of Brazilian agriculture and livestock production, but also deprive the country of an opportunity to engage proactively and constructively with these issues by drawing on existing positive experiences accumulated within this field. As it has

been the case within the energy sector, front runners in adopting sustainable technologies and production models are set to dominate markets in the coming decades. A strategic and long-term engagement with socio-environmental demands is therefore imperative to guarantee that Brazilian agri-food exports remain associated with quality in terms of both product features and processes.

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