



Sustainable Sourcing of Soy

SUMMARY REPORT

The key sustainability issues in soy production and how these are addressed by ten companies

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Executive Summary

The objective of this assignment was to provide a comparative ranking of ten consumer goods companies in the soy value chain identified by Stewart Investors, indicating which perform best in terms of sustainability. The work was supported by a market sustainability analysis, targeted company and expert interviews, market benchmarking and a bespoke scoring matrix based on best practice.

The priority relevant soy sustainability issues identified are:

- **Landscape conservation** – deforestation, loss of biodiversity, habitat destruction and land use change are significant environmental concerns in soy production, particularly in South America where the Amazon and Cerrado regions are now specifically protected under international agreements for soy.
 - **GMOs, water and agricultural inputs** – GMOs are a growing concern in the soy market due to their association with higher rates of application of herbicides or pesticides, unknown potential impacts on human health and threat to local biodiversity.
 - **Waste and outputs** – environmentally damaging outputs like carbon emissions or waste management concerns like non-recyclable packaging are significant issues in the consumer goods sector.
 - **Land and community rights** – issues around land grabbing, exploitation of local peoples and community engagement are critical issues in soy production and a core principle of the RTRS.
 - **Labour and governance** - payment of fair wages, provision of necessary training and quality health and safety standards should be used at every step of the soy value chain, from farm to factory, particularly with recent accusations of worker exploitation and even slavery in soy plantations.
 - **Sustainability leadership** – corporate engagement with international, regional and national agreements, initiatives and certification standards is too low, and large consumer goods companies should be striving to promote greater market wide practice.
 - **Supply chain and traceability** – due to the nature of the crop, traceability of soy is highly challenging but with growing concerns around GMOs and zero-deforestation value chains, it is an increasingly important objective.
- In addition to the company rankings, we made several general findings about sustainability in the soy supply chain and companies' approaches to tackling these challenges:
- **Zero deforestation** is a stated top priority for almost every company in the selection and many have specific commitments. However, the implementation and verification of these priorities is less clear.
 - **Very few Western companies are taking a strict no-GMO stance** or a pro-active stance on GMO labelling, but Asian companies are.
 - **No company makes a timebound, quantified commitment for reduced fertilizer use** or not using certain fertilizers beyond compliance with local regulation.
 - **Almost all companies have GHG emissions reduction ambitions**, but almost no companies make commitments to reduce emissions beyond GHG or have commitments to air quality improvements.
 - **Despite the increasing pressure from consumers**, zero-plastic commitments are still rare.
 - **Very few companies make reference** to respecting the principle of Free, Prior and Informed Consent agreements or the UN Declaration on the Rights of Indigenous Peoples in relation to soy.
 - **Only one** company has a robust, comprehensive soy specific policy, although several have informational commentary on their approach to sustainable soy sourcing.
 - **Few companies** have publicly stated ambitions to make soy supply chains transparent and traceable.
 - **Supply chain complexity** makes identifying individual company purchase volumes of soy - particularly 'embedded' soy 'hidden' as a secondary ingredient in goods purchased by the companies profiled – deeply challenging.
 - **Nonetheless**, in order to assess the materiality of company approaches to the sustainability issues at hand (landscape conservation in particular), a sourcing volume-based prioritisation of companies could be made.
 - **Similarly, assessment could be furthered** by taking an explicit 'investor lens', weighing the approaches of financiers to soy sustainability.



Overall the companies were given the following ranking and scores based on the evidence reviewed:

Company	Rank	Policies	Reporting	
SC1	1	A-	B+	SC1 sets a high bar in terms of soy sustainability with a soy specific policy, an active focus on regenerative agriculture, an impressive standard of traceability in its direct and indirect supply, and a proactive approach to supplier development and capacity building. Its published policies and action plans are sufficient, however the soy specific policy could usefully be updated.
SC2	2	A-	B-	SC2 is a leading company in sustainability policies for agricultural commodities. Its policies are robust, and its reporting, while scarce in some areas, is extensive in critical areas. SC2 recognises the importance of sustainability in the soy value chain, although has not yet produced an independent soy sustainability policy.
SC3	3	B+	C	SC3's scale, market position and history evidently bear in its comprehensive, integrated policies – lead by those on deforestation – and industry leadership and engagement. Pushing these through its embedded soy supply would be critical to advancing further.
SC4	4	C	C-	Whilst ostensibly having a broad coverage of policies and reporting across key categories, SC4's approach reads passively. This impression was reinforced by its reticence to engage in discussion on the issues.
SC5	5	C	C-	SC5 takes a strong stance on no use of GMOs, publishes extensive labour policies and has ambitious targets regarding pollution and reduction of plastic use. However, it does not subscribe to any of the key soy sustainability agreements, give limited public consideration to deforestation, and only make passing references to traceability.
SC6	6	C	C-	SC6 has started taking steps towards critical issues. However, its commitments to conservation and supply chain sustainability are limited, and very little public reporting is provided, possibly because SC6 does not typically treat and use soy as a raw material but as a processed material - soybean oil.
SC7	7	C	D+	SC7 is making a number of the right commitments, but its policies are lacking detail and rarely offers actionable steps as to how these commitments will be achieved. As a result, SC7 offers very little public reporting on sustainability issues.
SC8	8	C-	D	SC8 does have good commitments to sustainability for several of its natural materials, but not specifically for soy, primarily because soy is a decreasing ingredient for their manufacturing. Of note, SC8's approach to reducing pollution and promoting renewable energy is robust, and its work with a major conservation group on landscape level conservation is impressive.
SC9	9	F	F	SC9 does provide limited reporting on some stores in relation to plastic, but that unfortunately is the extent of its reporting on sustainability issues, and it does not have any public policies which could inform the benchmarking. SC9 also chose not to participate in interviews with the research team.
SC10	10	F	F	There is precious little that can be said about SC10. It has no publicly available policies and chose not to participate in our interviews. There is also limited information in media and third-party sources about its operations, despite being a major producer of soy sauce.

Executive Summary continued

Grading Key

For each category, companies are given a letter grade for their policies and reporting or verification of their actions. The scores are defined below:

Grade	Definition
A	Company meets all or most indicators with comprehensive policies and high-quality reporting. No negative third-party information has been gathered. Corroborating or verifying evidence is also available.
B	Company meets most indicators but is missing some of the more advanced requirements, or the policies/ reporting could be improved. Negative third-party information may have been gathered. Some corroborating evidence is available.
C	Company meets several indicators but provides limited details, is missing information on implementation or fails to set realistic milestones and targets. Negative third-party information may have been gathered. Limited corroborating evidence is available.
D	Company meets a critical indicator but few others. Passing mentions are made to policies or approaches to reporting but no detail is provided. Negative third-party information may have been gathered. No corroborating evidence is available.
F	Company fails to meet any of the indicators on policies or reporting, either due to lacking sustainability approach or lack of public information.



Introduction

Background

Stewart Investors contracted LTS International Limited (LTS) for a bespoke research assignment regarding the key sustainability issues in soy production, and the approach of ten specific consumer goods companies in the soy value chain to these issues. These companies are primarily food and beverage manufacturers, but also include household goods and cosmetics companies. They are geographically diverse with headquarters in North America, Europe and Asia and global operations.

The Approach

The research was undertaken using a four-step approach:

1. **Analysis** of the soy market to identify the most pressing or critical soy sustainability concerns in order to contextualise the findings and to guide the scoring criteria.
2. **Development of a bespoke scoring matrix** based on the context analysis, other soy and commodity sustainability ranking tools, and sector expertise. Scoring was divided into three streams:
 - a. Companies' commitments or policies concerning a particular issue, ranging from statements made through press releases or public comments to those which have been formalised and codified in the company operating procedures;
 - b. Companies' reporting on actions taken and outcomes achieved as a result of undertaking or maintaining these commitments;
 - c. A review of external perspectives on the company practices offered by NGOs, watchdogs and market experts.

3. **Interviews** with relevant stakeholders were undertaken. These included six of the ten companies that agreed to discuss their policies and activities (across sustainability, sustainable sourcing, procurement and investor relations departments). These were supplemented through interviews with five external market experts to discuss how policies were applied in practice and to seek insights which may not be currently publicly available. All companies were contacted simultaneously for discussion, with follow-ups across multiple channels and offers made for each company to provide written responses if discussion was not possible.
4. **A benchmarking exercise** to assess how each company's policies sit within the wider soy market, looking at publicly available policies concerning the most critical soy issues identified.

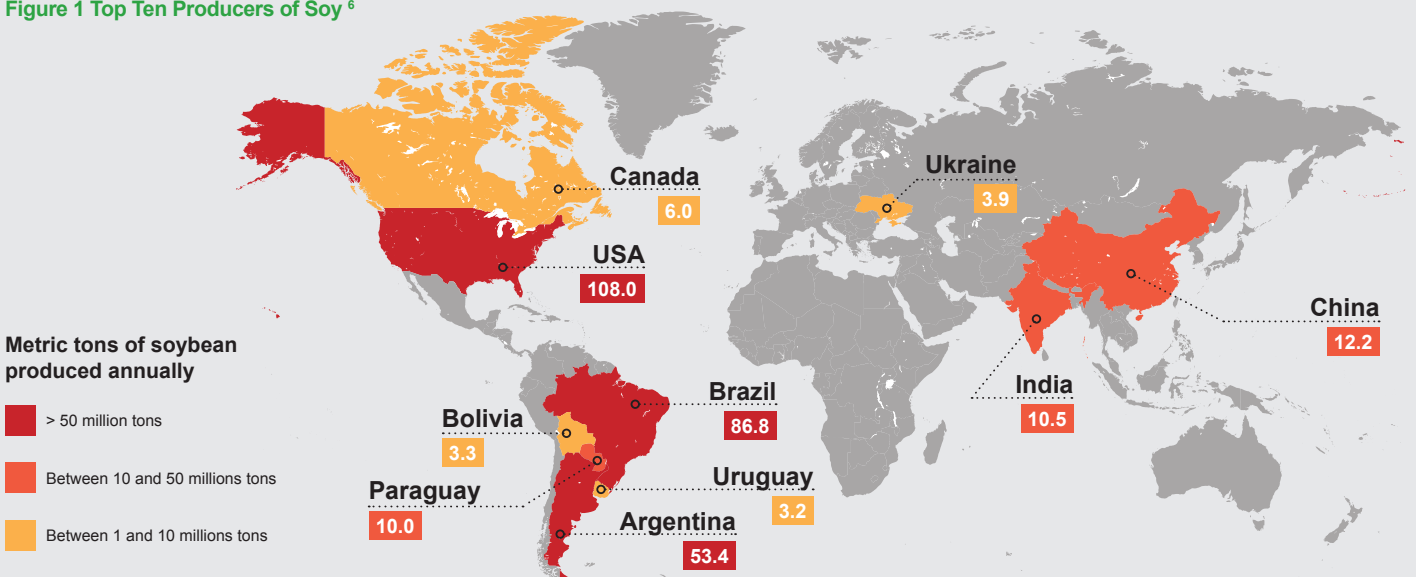
The Growing Soy Market

Over the past 20 years, the soybean market has more than doubled to become a \$123 billion market, and has emerged as one of the world’s most important agro-commodities.¹ However, this rapid rise in economic importance has come a suite of negative impacts; soy is strongly linked to deforestation, ecosystem loss, increased greenhouse gas emissions, social displacement, and the problematic aspects of genetic modification (GM).

Globally, approximately 87% of all soybean production is crushed into soy meal and soy oil (referred to as “soy derivatives” or “processed soy” in this report) with only the remaining 13% used for direct human consumption

through products like soy sauce, tofu and tempeh.² Most soymeal (over 90% in the EU³) is used for animal feed. Other uses of processed soy include as cooking oil, a source of protein in meat and dairy substitutes, and an ingredient in many processed food products. A recent estimate suggests that soy derivatives are used in the production of 60-70% of all global supermarket products.⁴ Similar to palm oil – or perhaps even more so – soy is often an ‘invisible’ ingredient in many consumer products. The “way soy is embedded in the food system has meant that consumer-facing firms have been shielded from the externalities of its production and trade to a much larger degree than parallel commodities”.⁵

Figure 1 Top Ten Producers of Soy⁶



The largest producer countries for soy are the USA, Brazil, Argentina, and China, while Latin American supply now accounts for 50% of the world’s soy production.⁷ To meet the projected 70-80 million metric ton increase in global consumption of soybeans over the next ten years – driven largely by increased meat consumption by the growing global middle class – projections suggest that soy production will need to increase by an amount equivalent to the current combined production of Brazil, Paraguay, and Uruguay. While it is expected that a proportion of this will come through higher yields and technological improvements, some will also need to come from additional land planted for soy,^{8,9} coming from land use change, which is likely to result in significant deforestation, biodiversity loss and greenhouse gas emissions.

As with many soft commodities, brands and retailers – such as those assessed – are limited to an indirect influence over the nature of supply, including where and how it is grown. Instead, producers and trading houses generally hold greater control and oversight of key parts of the value chain, and thus many of the sustainability issues in soy production. In fact, a small number of processors and traders dominate the market for soy and soy derivatives. For example, the top 15 traders control more than 76% of soybean exports and soy derived products from Brazil,¹⁰ exemplifying the influence traders have versus consumer goods retailers who are often far removed, both geographically and through a number of supply chain links, from the sustainability issues linked with production.

Sustainability in Soy Production

Growing demand for soy has been associated with a number of environmental and social impacts in producing countries. These can be categorised into seven key areas: (1) Landscape conservation; (2) GMOs, water and agricultural inputs; (3) Waste outputs; (4) Land and community rights; (5) Labour and governance; (6) Sustainability leadership; and (7) Supply chain and traceability. These areas are discussed below and form the basis of the assessment and ranking of the selected companies.

Landscape Conservation

In South America, the total land devoted to soy production grew from 17 million hectares in 1990 to 46 million hectares in 2010, much of this as a result of forest conversion.¹¹ Damaging land conversion (including but not limited to deforestation) is a key factor in climate change and has long term impacts on water security, soil health, biodiversity and carbon capture from both plants and the soil. A 'business as usual' approach to soy production in emerging markets could therefore lead to significant continued land conversion and a range of associated impacts. Conservative estimates suggest that annual soy-related deforestation could increase by 11% by 2025,¹²

exemplifying why landscape conservation is the key sustainability issue in soy production

It is important to note that deforestation and land use change for soy production are not limited to South America. A 2015 study by the University of Wisconsin-Madison found that nearly three million hectares of uncultivated prairie and grassland in the USA were turned into farmland between 2008 and 2012, mostly for soy and corn rotation cropland. The carbon lost through the land conversion for soy and corn crops alone have released as much carbon dioxide as 34 coal-fired power plants running for an entire year.¹³

In 2019, Global Canopy, an environmental NGO, assessed companies and financial institutions' forest-risk commodity policies as part of its Forest 500 ranking. The report ranked companies based on their commitments and actions towards ending forest loss in their supply chains or portfolios and found that over 40% of the 'Forest 500' were yet to make clear commitments to tackle their linked deforestation.¹⁴ Even among those with commitments, there remains a gap between commitments to and what is being implemented on the ground.¹⁵

New Soy Frontiers and the Changing Landscape

In 2006, Greenpeace's "Eating up the Amazon" report brought global attention to the Amazon rainforest as the epicentre of damaging soy-related landscape conversion. While the resulting Amazon Soy Moratorium has reduced deforestation for soy in the Brazilian Amazon, in the last decade, the Brazilian Cerrado, Argentine Gran Chaco and Paraguayan Atlantic Forest have seen major expansion of soy.¹⁶ Changing market dynamics and growing global demand for soy have created new opportunities for trading companies to expand and increased pressure for further expansion into frontier regions.

Brazilian Cerrado and the Matopiba Region

Large tracts of the Cerrado have been converted for soy, corn, cotton, and other commodities. Covering two million square-kilometres, only 20% of the Cerrado's original vegetation remains intact with less than 3% protected by law. Three and a half million hectares of native vegetation were converted for soy production between 2000 and 2015. The Cerrado currently produces 60% of the total soy in Brazil, and the current Native Vegetation Protection Law still allows for legal conversion of wildlands to plantations.

The Matopiba region, in the northeast of the Cerrado has seen an enormous expansion of soy production, with more than 300% growth since 2001. This has, unsurprisingly, resulted in significant deforestation and habitat loss. The region represents a risk for companies sourcing soy as evidence suggests that the large areas of remaining natural vegetation cover are at risk due to ongoing investment and low levels of legal protection.



Figure 2: Map from Union of Concerned Scientists, 2016.

The soy frontier in Matopiba is in the northern part of the Cerrado and a small section of the eastern part of the Amazon biome.



GMOs, Water and Agricultural Inputs

Genetically modified organisms (GMOs) offer several potential benefits to the agriculture sector, including potentially lower input needs and crops that are more resilient to increasing variable rainfall and temperature. Soy is the number one genetically modified crop in the world, with an 82% adoption rate by soy farmers globally.¹⁷ However, there are a number of concerns related to GMO soy. First, there is uncertainty as to the potential health impacts of long-term use of GMO soy. While studies so far have not conclusively found negative health impacts linked to GMO soy, public concern has proven enough to cause companies to make public commitments on GMO usage, particularly in Asia. Second, GMOs introduced into a particular environment have the potential to damage biodiversity through genetic drift. Third, GMOs can increase the vulnerability of farmers, as large agricultural companies claim ownership rights of these specific crop strains, potentially having negative impacts on livelihoods of farmers.¹⁸ Finally, the use of GMO soy has meant increases in the use of certain chemical inputs, especially the controversial herbicide glyphosate which is used extensively to clear land for and maintain soy farms given that some GMO soy is resistant to its effects.¹⁹ In turn, this has resulted in additional stress to ecosystems close to soy production areas,²⁰ and risks contamination of the soybeans produced and thus the end products in which soy derivatives are found in the food chain.

The largest ever study in the USA on the environmental impact of GMO crops, including soy, found that, despite decreased insecticide use, “continued growth in herbicide use poses a significant environmental problem as large doses of the chemicals can harm biodiversity and increase air pollution”.²¹ Soy production also requires significant use of other inputs, especially nitrogen-based fertilisers, which are energy-intensive to manufacture and which can damage soil health and water quality if not applied properly. The soy-corn crop rotation generally practiced in the USA, both using nitrogen fertiliser, can also create significant nitrogen runoff and carbon dioxide emissions, without leaving the soil time to regenerate. As a result of these concerns, many country governments, including the European Union have banned the production (although not the sale) of GM crops.

In terms of water use, soy is not an especially water intensive crop, and the production of many soy products is often lower than other alternatives. For example, one litre of soy milk has an estimated water footprint of 300

litres, whereas one litre of cow’s milk has a footprint of over 1,000 litres.²² However, with the Cerrado being a critical region for Brazilian freshwater and the potential for water pollution from increasing usage of nitrogen fertilisers and chemical inputs, water security in soy production regions is a growing concern. The CDP Water Disclosure project is an initiative seeking to encourage companies to increase their reporting on water management to drive sustainable change, and has been a key source of information for company practice in this regard.

Waste and Outputs

The majority of waste and outputs attributable to soy production are related to land use conversion and deforestation, or to the use of harmful fertilisers in crop cycles, and indeed the Round Table on Responsible Soy (RTRS) Principles primarily focus on reducing fuel use in production and increasing natural vegetation for carbon capture. While the production of soy is not itself carbon intensive, the processing and distribution for the retail food sector is and would be captured as Scope 1 emissions under the Greenhouse Gas (GHG) Protocol Corporate Standard for those companies that manufacture food products directly. In addition, soy is often a key source of protein for cattle feed, the single most carbon intensive industry in the world. As highlighted in Figure 1, the vast majority of soy produced and exported worldwide comes from the USA or South America. This suggests high logistic requirements and, consequently, significant amounts of greenhouse gas emissions which would fall under the Protocol’s Scope 3 emissions.

‘Direct’, ‘Indirect’ and ‘Embedded’ Soy

Many of the companies surveyed made a distinction between their ‘direct’ and ‘indirect’ soy supply chains, and indeed this was a key point of differentiation in approaches to sustainability. ‘Direct’ soy can be characterised as specific soy and derivative products (soybeans, and soy oil and soy meal derivatives) purchased by companies. ‘Indirect’ or ‘embedded’ soy refers to the soy used in the production of purchased goods, and often represents a significant proportion of the soy volumes relevant to the companies analysed. Examples of embedded soy include those volumes used as livestock feed in the rearing of cattle for milk or meat products. It is in these embedded sources of soy that Scope 3 emissions are particularly relevant.

Sustainability in Soy Production continued

Thus, while soy production does not cause significant emissions outputs, its use by global consumer goods companies does. The same is true of plastics – the soy supply chain is not a major user of plastics, but given soy’s ubiquity in the consumer goods sector, where single-use plastics are at an all-time high, it is indirectly contributing to this important environmental issue. Plastic waste is therefore included in the sustainability assessment framework, alongside other waste and output concerns. Reuse and recycling are important parts of RTRS certification, as is responsible management of all waste and potentially harmful outputs.

Land and Community Rights

Land rights are a significant issue for certain soy-growing regions. A report by Global Witness found that more indigenous forest activists had been killed in Brazil than in any other country, with most deaths occurring in regions where land grabs for cattle ranching and soy plantations are common.²³ The new Brazilian president’s decision to transfer the responsibilities for defining indigenous territories to the Agriculture Ministry is likely to see increases in conflict between indigenous groups and agribusiness actors in soy frontier regions as businesses seek to expand production.²⁴ Land grabbing has also been reported in Argentina and Bolivia. Community level engagement, open channels of communication and respect of the principle of Free, Prior and Informed Consent (FPIC) from communities for the use of their lands critical requirements for minimising community land disputes, upheld in Principle 3 of the RTRS Principles. While this primarily applies to producers, influential consumer goods companies should make reference to these commitments, and hold their suppliers to account for implementing them.

Labour and Governance

Responsible labour practices are an important element of the UN Sustainable Development Goals and most corporate codes of conduct, and should be recognised throughout the supply chain. Payment of fair wages, provision of necessary training and health and safety standards should be respected at every step of the soy value chain, from farm to factory. However, in the past decade, there have been accusations of worker exploitation and even slavery in the soy market and, while voluntary certification programs and regulatory requirements seek to prevent such practices, it is suspected that this continues today.²⁵ Robust procedures for grievance submission or whistleblowing are essential in order to combat labour exploitation.

Sustainability Leadership

In response to numerous NGO campaigns, as well as an increased interest from commodity users on reducing their impacts on deforestation and climate change, in recent years several initiatives have emerged to address social and environmental sustainability concerns in soy production. The Sustainability Standards section below outlines the scope of the main soy specific endeavours operating at scale, and relevant to the companies assessed. They can be broadly categorised into initiatives for collective action (the Amazon Soy Moratorium, Cerrado Manifesto, Danube Soya Initiative and the Soy Buyers’ Coalition) and certification standards (the Round Table on Responsible Soy and Proterra Foundation), although in practice there is overlap and interaction between the two approaches to improving sustainability performance.

Cargill and Bunge: Insights into the role of the soy traders

Environmental group Mighty Earth released a report in 2017 providing evidence that top German soy importers had contributed to the destruction of almost 800,000 hectares across the Brazilian Cerrado and Amazon since 2011. In response to investor and customer concerns about deforestation, both Cargill and Bunge (key global soy traders) adopted policies not to source from newly deforested areas. However, Mighty Earth notes that satellite analysis reveals that these policies are not being implemented on the ground.²⁶

Cargill and Bunge were identified as not taking sufficient steps to prevent the substantial amount of deforestation occurring in areas where they have operations, purchasing soy from farmers who have deforested, despite their public policies. The Mighty Earth report details that while Bunge has adopted a strong policy on paper to stamp out deforestation in its supply chains, this policy had not been communicated to its suppliers. At the same time, it found that “Cargill’s policy is notoriously weak. Unlike competitors whose bans on deforestation are effective immediately, Cargill has given itself until 2030 to eliminate deforestation from its supply chains”.²⁷ This report therefore seeks to draw a distinction between policies and reporting on soy sustainability and take a critical approach to implementation.



Sustainability Standards and Initiatives

Multi-stakeholder initiatives

Amazon Soy Moratorium

The Amazon Soy Moratorium, signed in 2006 and renewed indefinitely in 2016, is an agreement by a range of government, industry, and civil society stakeholders to protect the Brazilian Amazon from conversion to soy plantations. The Moratorium originated after public outcry following a Greenpeace report in 2006 highlighting the links between deforestation in the Amazon and soy and meat production. The agreement at its core focuses on companies refusing to purchase from soy traders whose supply comes from farmers who have destroyed the rainforest, used slave labour, or taken over indigenous lands.²⁸ There is evidence the Amazon Soy Moratorium has been successful at preventing further forest conversion for soy in the Amazon, however one report suggests that the Moratorium “may even exacerbate soy-associated land conversion in the Cerrado, by displacing soy expansion away from the Amazon”.²⁹ Nonetheless, the Moratorium represents a key industry benchmark.



Cerrado Manifesto

Partly in response to the above dynamic and in the space created by the Moratorium, in September 2017, over 60 Brazilian NGOs, (including WWF-Brazil, Greenpeace Brazil and the Amazon Environmental Research Institute) released the Cerrado Manifesto calling for “immediate action in defense of the Cerrado by companies that purchase soy and meat from within the biome, as well as by investors active in these sectors”.³⁰ In October 2017, 23 global brands signed the Statement of Support for the objectives of the manifesto, and to date over 100 additional companies and investors have followed suit.



The Danube Soya Initiative

This initiative was founded in 2012 as part of a collaboration between European retailers to incentivise a significant increase of European livestock producers to use non-GMO feed. It has gathered support from European retailers, major manufacturers and government officials. The initiative focuses on non-GMO compliance and conformity to a set of sustainability indicators.³¹ It primarily addresses the sourcing of soy for animal feed.



Sustainability in Soy Production continued

Voluntary certification standards

The Roundtable on Responsible Soy (RTRS)

The RTRS was established in 2006 as a civil society organisation aiming to promote responsible production, processing and trading of soy on a global level. There are currently over 200 members including growers, traders, financiers, commodity user groups and civil society. The RTRS aims to facilitate dialogue on soy and reach consensus among key stakeholders linked to the soy industry, as well as “promote sustainable production to reduce the social and environmental impacts of soybeans”.³²



The Proterra Foundation

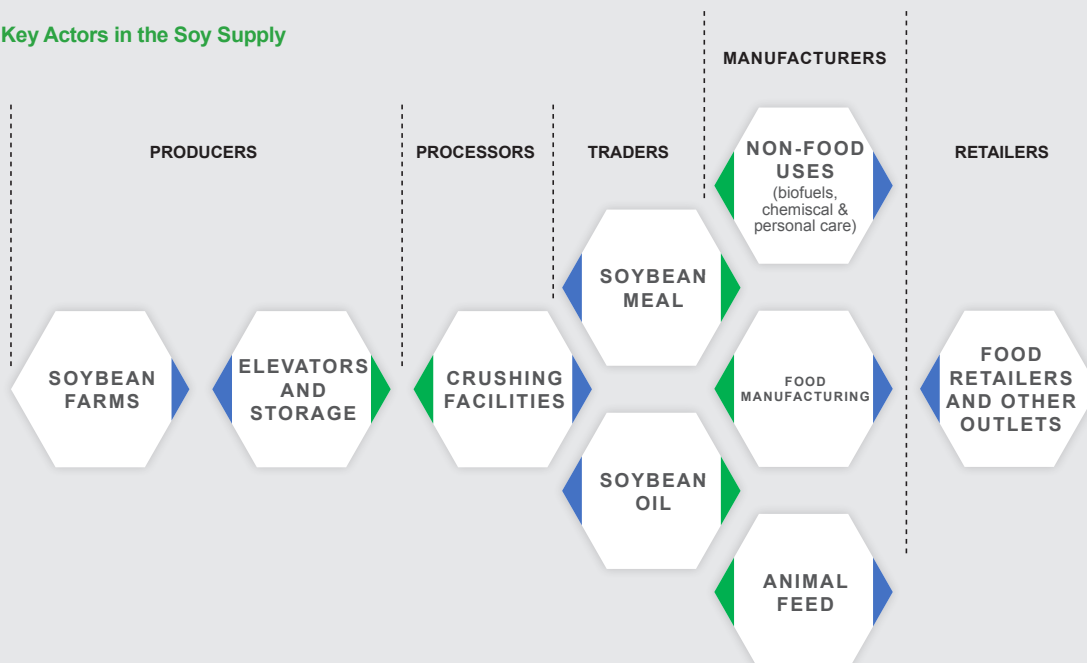
Proterra is an agricultural certification body with its own specifically created soy sustainability standard.³⁴ Characterised by multi-stakeholder governance, the Proterra Standard represents a higher level of rigour in sustainable soy production practice than RTRS and was mentioned by interviewees in particular with regards to its non-GMO criterion. In 2017, 965,000 metric tons of soy were Proterra certified, out of a total volume of certified soy 19 million metric tonnes.³⁵



Supply Chain and Traceability

Soy supply chains and the associated attempts at soy traceability pose a particular challenge to addressing many of the specific issues related to soy production discussed above, and therefore warrant a separate scope of analysis. Figure 2 outlines the different stages of the soy supply chain and the key actors involved. In general terms, there are five key actors: producers, processors, traders, manufacturers and retailers.

Figure 2 Key Actors in the Soy Supply





Soy supply chains are complex and differ across geographical regions. In Brazil, there are often hundreds of smaller trading firms supplying both domestic and international markets in complex trading networks. The value chain has several stages often covering large geographic distances as part of a global supply chain. The complexity of soy supply chains and final end “uses” means that it can be challenging to accurately capture data on all products containing soy or to trace that soy back to its source. This issue is further compounded by the nature of the soybeans themselves in comparison to other forest risk commodities like palm oil. Soybeans can be stored en masse for long periods: in the USA the total silo capacity for soybeans at any one time is up to an entire year’s production. This increases the likelihood of multiple physical traders of the same product, rendering traceability even more difficult for end user companies such as those surveyed below. Large traders own the majority of processing and storage facilities, with new entrants investing heavily in soy frontier areas such as Matopiba region in Brazil, made attractive by lower environmental regulation and new export routes.³⁶

Supply chain and traceability challenges can have significant impacts for companies seeking to implement environmental and social sustainability policies. The complexity of the supply chains makes the impact of

individual zero-deforestation commitments (ZDCs) difficult to track, verify and attribute to company policies. The sector is improving and ZDCs by the four major traders in Brazil mean that, in 2016, 42% of soy exports from Brazil were under a ZDC made by soy traders.³⁷ However, soy producers continue to clear forests for agriculture land. For example, soy producer SLC Agricola was found to have cleared almost 40,000 hectares of forests and natural savannahs between 2011 to 2017. As a result, the Norwegian Pension Fund divested in 2017 (reportedly due to concerns about sustainability in their soy supply chains). However, soy traders Cargill and Bunge, both of which have ambitious public policies on sustainability, remain key clients of SLC Agricola, highlighting the importance of monitoring upstream policies down the supply chain.³⁸

According to CDP, less than half (44%) of manufacturers and retailers with procurement standards in place “monitor compliance with these standards and audit their suppliers across commodities. This is despite the need for supply chain alignment to allow companies to meet their zero-deforestation commitments”.³⁹ The 2019 Forest 500 report illustrates that no soy traders or processors disclose their direct suppliers (although by the point of publication of this report, two companies had released their supplier lists).

General Conclusions

Only one company scored above a B+ for policies and no companies did so for reporting or verification.

SC2 received an A- for its policies, which could realistically be pushed to an A by improving the supply chain traceability commitments and making specific policies for sustainability in soy. Likewise, SC1, with a B+ for policy, could reach the higher grade by updating its soy policy and strengthening commitments to conservation beyond deforestation and approach to waste management. All companies could afford to improve their reporting standards. Publicly reporting progress against commitments, including challenges and lessons learned about the market, is key to removing the information asymmetry barrier often encountered in sustainability issues for commercial commodities.

Landscape Conservation

Zero or significantly reduced deforestation is a stated top priority for almost every company in the selection and many have specific commitments. However, the implementation and verification of these priorities is less clear.

Suppliers are rarely explicitly held to the policy and only a few policies make reference to High Conservation Value areas (a leading benchmark for the seriousness of conservation approaches). Many companies also make commitments to reducing deforestation but do not have traceability for their soy supply, which makes verification of zero-deforestation supply impossible, particularly in the indirect soy supply chain.

Landscape conservation appeared as a much lower priority for the Asian companies reviewed than the European and American ones.

This confirms recent analysis in the context of the macroeconomic factors impacting sustainability in soy production and presents significant deforestation risks for Asian companies: 'As the trade war between the U.S. and China continues, China may increasingly look to Latin America for its soy, potentially increasing the chances that land will be cleared to make way for the crop'.⁴¹

GMOs, Water and Agricultural Inputs

Very few companies are taking a strict no-GMO stance or a proactive stance on GMO labelling.

Mostly labelling is compliant with local regulation, but it is rare to see a company-driven approach or company-wide

policy. Furthermore, only half the companies have a public GMO policy or mention an internal GMO policy.

No company makes a timebound and quantified commitment for reduced fertiliser use, which is particularly important for nitrogen-based fertilisers given that they are a significant source of pollution. A few companies, such as SC1, have a broad sustainable agriculture programme which includes reducing fertiliser use, but does not set clear targets. In part, this can be justified given the complexity of multi-commodity agriculture policies; the acceptable level of chemical inputs will vary according to the crop and geography. However, companies could overcome this challenge by adopting and publishing crop-specific agriculture policies, and by disaggregating the approach by supplying region.

Waste and Outputs

Almost all companies have GHG emissions reduction ambitions and progress toward them.

However, almost no companies make commitments to reduce emissions beyond GHG or have commitments to air quality improvements. Several companies have Scope 1 and Scope 2 emission reduction targets but none have issued public Scope 3 emission reduction commitments, although a couple have indicated an intention to do so and have made timebound carbon neutrality commitments. Given that most emissions in soy supply chains are Scope 3, this is of special concern.

Despite the increasing pressure from consumers, zero-plastic commitments are still rare.

Most companies make mention of plastics in policy or in press releases and around half those considered have pledged to reduce or eliminate the use of non-recyclable plastics. Only a few pledged to reduce single-use plastics and the language is seldom concrete.

Land and Community Rights

Very few companies make reference to FPIC agreements or the UN Declaration on the Rights of Indigenous Peoples in relation to soy.

Several companies have policies on community rights and land-grabbing in relation to commodities such as palm oil, timber and pulp and paper packaging, but few have made the same commitments for soy.



Sustainability Leadership

Only one company (SC1) has a robust soy specific sustainability 'policy', though others have soy specific sourcing information on websites and in reports that do not constitute comprehensive policies.

Potentially this is because consumers are not as aware of the issues in soy as they are in other comparable commodities (i.e. palm oil) and so there is less pressure to justify sustainability in the soy value chain, whilst other organisations higher up the rankings (SC3 and SC2 for example) highlighted the advantages of comprehensive commodity agnostic sustainable sourcing policies over commodity specific ones. SC3 in particular mentioned that they had absorbed an old soy policy into their recently inaugurated 'Responsible Sourcing Standard'. There also seems to be an acceptance that processed soy products, such as soybean oil, are less of a priority than directly sourced soybeans. Several companies also noted that soy was not a priority for sustainability, usually due to the proportion it made up of natural oils they used as product ingredients.

Supply Chain and Traceability

Few companies have publicly stated ambitions to make soy supply chains transparent and traceable.

SC1 are certainly leading the market in this regard, although SC3 has recently released its direct soy suppliers and several did mention during interview that this was something they were looking into and aiming to do in the future. The argument was made that the nature of the soy processing and supply chain would make this a difficult and impractical task. The Consumer Goods Forum's Soy Buyers Coalition – engaged with as part of the research - is seeking to support companies on this in a pre-competitive manner.

This supply chain complexity makes identifying company volumes of soy - particularly 'embedded' soy – deeply challenging.

The implication of this – combined with the global fungibility of soy - is that the sustainability challenge itself may not be addressed even if companies have strong individual direct sustainable sourcing approaches. Soy linked to deforestation can simply be sold to buyers without policies (the so-called 'leakage' market). Multi-stakeholder bodies seek to address this but must be all encompassing with mechanisms for redress, whilst consumers and retailers have difficulty knowing whether their purchases of soy-related products are sustainable or not.

Further Enquiry

The list of companies assessed was relevant and useful in that it covered key customer facing brands

with soy in their supply chains. A significant difference was observed in the volumes of soy sourced among the companies assessed, through either their direct or indirect supply chains. **In order to assess the materiality of company approaches to the sustainability issues at hand (landscape conservation in particular), it is recommended that Stewart Investors prioritise companies based on volume-based sourcing of soy, looking both at total volume and the importance of soy as a key ingredient (for instance for companies with soy-linked brands).**

A suggested angle of approach to this would be to run a comparable assessment of the approaches to sustainability exhibited by the main soy crushers and traders.

Some companies (e.g. SC6) noted that they 'delegate' much of the responsibility of sustainable sourcing to their suppliers. Understanding of the differentiation between major soy traders in their sustainability approaches might in turn help consumer facing organisations who take this delegative approach to prioritise their sourcing.

Another lens through which to analyse soy sustainability could be on the basis of investor stipulations, policies and approaches.

Several sources reviewed weighted heavily the role of investors, access to capital, and its interrelation with the sustainability of sourcing. This could be approached from two dimensions: the approaches of third-party banks and investors to soy sustainability in their company profiling and investment decision making, or the approach of Stewart Investors' clients and how they map with the policies and reporting of Stewart Investors' investees.

It was notable that two of the companies (SC3 and SC1) have recently moved from product specific sustainable sourcing strategies and approaches to a company-wide approach.

A comprehensive comparison of commodity agnostic approaches to responsible sourcing might help draw out further differentiation, useful approaches, and present a more rounded understanding with which to engage companies.

From the context analysis and discussion with companies on their global operations, the role of the soy commodity market and global trade flows are significant in determining the practical effectiveness of individual company sustainable sourcing approaches. **Consequently, sustainability and commercial context analysis ought not to be considered in isolation from one another.**

An example is the impact of the Amazon Soy Moratorium, which was deemed to have made a material difference to Amazon deforestation but shifted land use pressure to the Cerrado area of Brazil as well as the Bolivian Amazon

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