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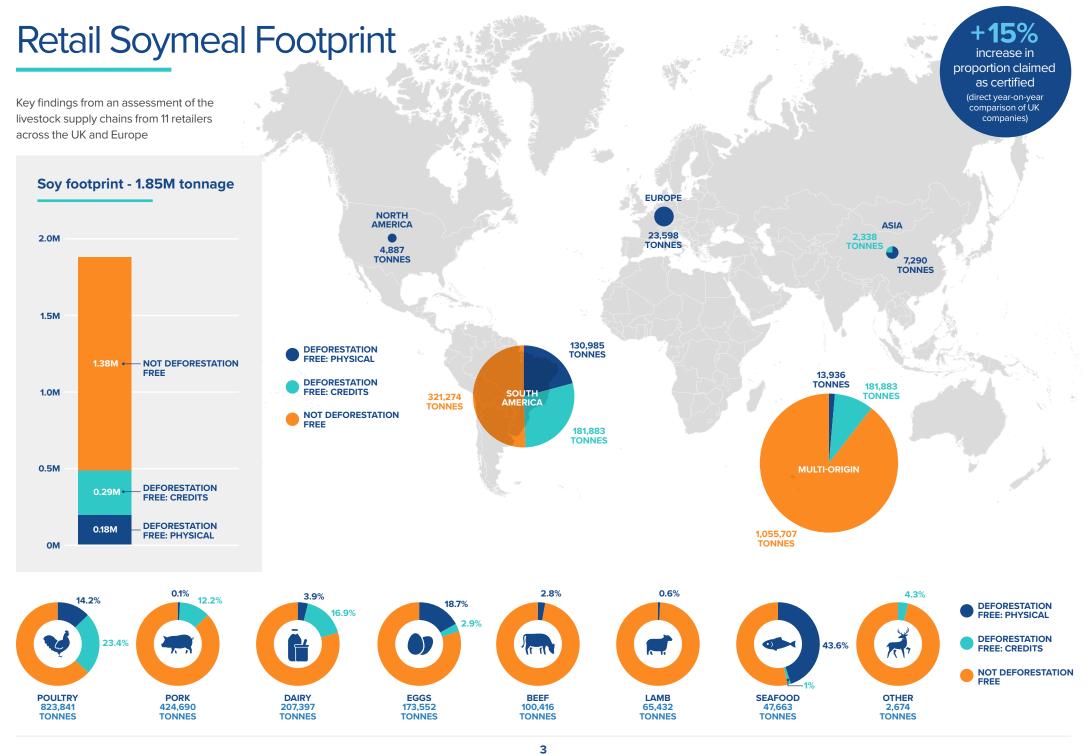




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# **Executive Summary**

2019 saw the scrutiny of soy supply chains continue to increase. With the public's newsfeeds being flooded with images of Brazilian forest fires, hidden commodities such as soy are beginning to creep into the public consciousness. This increasing public awareness and media attention, along with the changing political situation within Brazil, has made it more important than ever for private companies to take action within their own supply chains.

#### Solutions require supply chain transparency

Key actions taken by retailers include sourcing soy certified to a deforestation free standard and support of area mechanisms to support verified deforestation free zones. However, improved transparency is required in order for these solutions to be effective. Without evidence of origin or the flow of certification, it is not possible to monitor progress by verifying whether soy is being sourced from verified 'deforestation free areas' or has been certified to an appropriate standard.

## Progress driven by retailer policies on certification

Since 2018, significant progress has been seen in some areas. This year, 25% of all soy assessed was claimed to meet a deforestation-free standard, which represents a 15% improvement when comparing year-on-year for retailers also involved in 2018 reporting. Furthermore, many retailer suppliers who were reporting for the second year running improved the methodology used for calculating their soy footprint. Significant improvements have yet to be seen for disclosure of soy origin and trader, and gaps remain in evidencing certification. Strong, decisive action is required from actors



across the supply chain in order for these issues to be addressed to deliver on the ambition of retailer policies.

## Verifiable deforestation and conversion free soy

Evidence flows for documentation of deforestation and conversion free soy have remained a challenge for reporting companies, with many unable to demonstrate chain of custody or exclusive allocation of certified materials. In some cases this is due to specific requirements for different mechanisms (such as the transfer of RTRS credits), but it is also often the result of a break in the flow of documentation at the importer/feed mixer level of the supply chain. Specific requirements for each of the mechanisms have been recorded in order to improve knowledge on what

documentation is needed to verify certification claims being made in the future.

### A consistent reporting approach, with a varying scope

11 retailers participated in the collective reporting process, and some have expanded the scope of their requirements to include not only whole protein products (e.g. chicken) but also products containing these as ingredients (e.g. biscuits containing milk). For some reporting companies this has meant that, although the information being requested is standardised, the proteins they needed to report on varied significantly between their retail customers. This caused some confusion with reporting companies, and created a barrier to some submissions, with many initially over- or under-reporting before later correcting these with updated reports.

#### **Report recommendations**



#### Retailers

- → Harmonise definitions on deforestation free soy
- → Focus on sections of supply with the highest impact
- → Support the need for systems change



#### Industry

- → Adapt feed standards to incorporate deforestation free
- → Develop models for physically deforestation free supply to give buyers options
- → Incorporate sustainability & origin transparency into feed requirements



#### Policy makers

- → Adopt due diligence requirements around deforestation risk of supply chains
- → Promote standardised data transparency throughout the sector

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# Background

# Soy continues to drive deforestation

Media coverage of forest fires in the Amazon during 2019 has focused society's attention on the issue of deforestation in South America. Though there are many commodities linked to land clearance in the area, soy is one of the main commodities being imported to Europe linked to these areas.

Despite increasing international efforts to slow the rate of deforestation in these regions, a loss of political support and funding for environmental agencies in some producing countries has raised tensions and threatened the effectiveness of initiatives. At the same time, the China-US 'trade war' has shifted China's soy sourcing to South America, increasing land use demand and prices for soy.

Findings from Brazil's federal monitoring agency show that June 2019 saw an 88% increase in deforestation in the Amazon from the same month in 2018, suggesting that these geopolitical factors may be having a real impact. The Amazon Soy Moratorium has been critical in protecting vital ecosystems. However even these protections are not immune to changing political priorities.

The EU imports around 15% of the soy on the global market, making it the second largest importer of soy in the world after China. Of this, over 65% is sourced from Brazil, Argentina or Paraguay (IDH, 2020).

Deforestation to support agricultural expansion is not a new issue in these countries, which have rapidly increased soy production since the



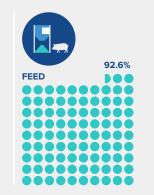
1960s, expanding from less than 3% to over 50% of global soybean production. As the amount of land used to grow soy in South America has grown to match production, so have concerns over deforestation and land conversion, particularly in the Amazon, Cerrado and Gran Chaco regions.

Whilst production is continuing to expand, research suggests that this could occur without further loss to native vegetation — by utilising the vast amounts of land suitable for agricultural expansion which have already been cleared, including 25 million hectares in the Cerrado (Carneiro-Filho and Costa, 2016). It is now more important than ever for private industry to drive the demand for zero-deforestation materials.

#### What is soy used for?

The most efficient source of protein per hectare in the world, soy is perhaps best known as a protein source in the food we eat (e.g. tofu, soy milk). However over 90% of soy consumed within the EU is in animal feed, for poultry and pork in particular.





Source: FCRN 2019

# Working together to end deforestation

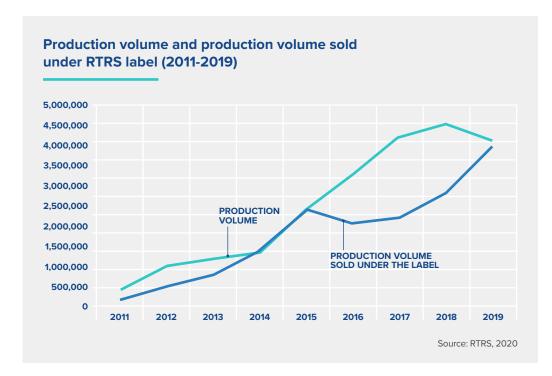
Retailer policies have widely adopted the Accountability Framework Initiative's definition of deforestation, which incorporates both deforestation and land conversion. Though this means that retailer policies are widely aligned, they don't typically include, or are inconsistent on, some of the more nuanced details (e.g. acceptable approaches to move to zero deforestation).

A number of approaches have been used by actors across the supply chain in order to address the issue of deforestation caused by soy in animal feed. Some of these are outlined below:

#### SOLUTION 1 Area mechanisms

Regional approaches have been adopted in some areas by coalitions

of public and private actors. The Amazon Soy Moratorium was set up with the aim of halting production of soy in the Amazon from areas deforested after 2006. This initiative demonstrates how soy production can be increased without causing deforestation, but relies on the continuing support of law enforcement agencies in Brazil. Focus has now expanded to the Cerrado, where the Cerrado Working Group (GTC) - established in 2017 - is seeking to protect the Cerrado through financial incentives for producers, encouraging them to use land which has already been cleared. This initiative was at risk of collapse in December due to the withdrawal of support from certain in-country organisations, and remains on fragile ground.



#### SOLUTION 2 Certification

Certification can ensure the sustainability of a particular soy

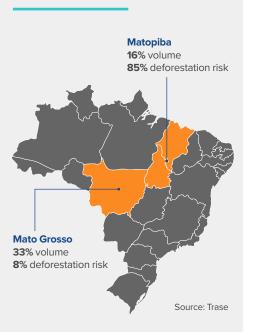
supply chain, but currently covers only a small volume of total soy production. The most prominent certification schemes used are ProTerra and Round Table on Responsible Soy (RTRS), which cover 1.2% and 1% of global production respectively. Whilst certified volumes have been increasing (see graph), this is not always matched by an increase in demand, which can limit the effectiveness of the certification scheme. A number of traders have also set up their own certification schemes to certify soy within their supply chains.

# Reducing soy usage

Some actors have sought to replace soy in animal feed with other

protein sources, such as peas, rapeseed or even insects. However, this approach should not be seen as an immediate 'fix' - as soy is such an efficient crop, the environmental impact of any alternatives should also be considered. Some companies are also considering moving sourcing from high risk to low risk regions (e.g. Europe, USA). However, there is also a need to balance any reduction of soy production with the consideration that soybean producing regions have seen significant economic development from soybean production.

#### Map of the EU's imports soy embedded deforestation risk in Brazil (2013-2017)



The Cerrado biome is at particular risk of land conversion, with agricultural production expanding by 87% in its tropical savanna region. The majority of this expansion is for soy production (Carneiro-Filho and Costa, 2016).

The most significant of the affected regions is the Matopiba, which represents 85% of the EU's soy embedded deforestation risk, despite only accounting for 16% of total imports (GIZ, 2019).

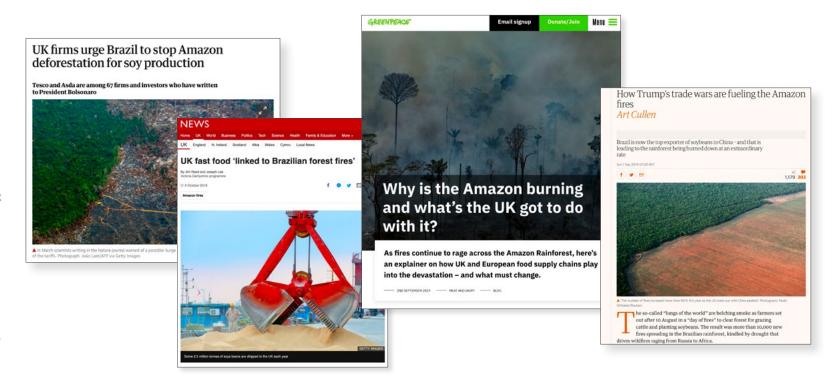
# Quantifying risk, understanding progress & unlocking opportunities

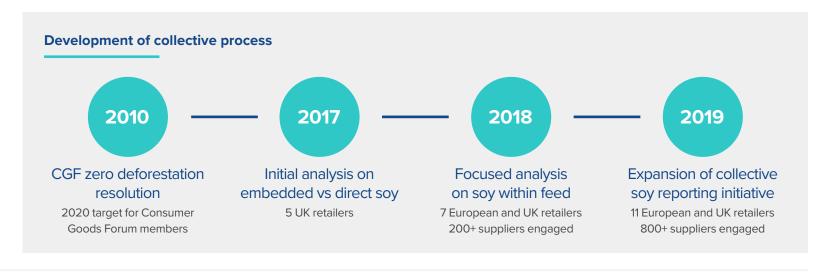
Retailers are expected to supply responsible products. Unlike other commodities such as palm oil or cocoa, which appear in on-pack ingredients lists, soy is often an invisible ingredient - used in meat, in dairy, eggs and fish feed. However, events such as the forest fires in Brazil have brought what is often a hidden commodity into the spotlight. With deforestation and destruction of natural habitats increasingly in the public consciousness, it is becoming more important than ever to understand and quantify the potential environmental and reputational risk of deforestation within a retail supply chain.

In order to quantify this risk, a group of UK and European retailers are working together with 3Keel LLP to run an annual, standardised, collective reporting process for their suppliers.

This reporting has given the retailers involved a greater awareness and visibility of their products' soy supply chain, and enabled them to make informed decisions around policy and strategy to progress towards their targets on reducing the deforestation impact of their products. The consistency of the ask from different retail customers also made this process more efficient for their suppliers, many of whom supply multiple retailers.

Now in its second year, this collective soy reporting initiative has expanded further with eleven retailers now involved.





# Transparency of supply chains remains murky

It is a requirement that all companies in the food system are able to trace back the origins of their materials to the farm level. This level of traceability is necessary to ensure that businesses are able to effectively act on concerns related to food safety and contamination when they arise.

# Chain of custody starts with farm level certification SILOS Many farms' outputs are mixed, leading to a loss of segregated flow

**TRANSPORT** 

**CRUSHERS** 

#### Sector progress addressing this challenge

#### 2018 findings

- → Many producers have 'any origin' soy in their feed specifications, meaning it is not traceable back to producing country.
- → Capacity is not built into the transportation system to provide segregated flows, due to a lack of market demand and higher costs.
- → Chain of custody of materials often stops at the point at which the soy is no longer sold as 'soy'. Therefore, whereas the importing company many have documentation showing the origin and certification of materials, this information is often not passed to the producer buying the mixed feed.
- → This break in chain of custody often means that it is particularly difficult for manufacturers who source from a large number of smallholder farmers to give detail on the soy in their feed.
- → A lack of impetus to report on use of soy in the past meant that the reporting mechanisms were often not present within producer companies to be able to give a full picture for a long period of time, instead only being able to provide snapshots of information that is available on a day to day basis.

#### 2019

- Refined calculation approaches used by some producers.
- Increased visibility of detailed feed data from producers.
- Data covering full reporting period more readily available from companies in their second year of data collection.
- The majority of all declared volumes, particularly for non-integrated supply chains, still do not have an associated origin disclosed.
- © Capacity for physical material flows remains an issue, with lack of clear demand cited as a reason for the lack of development during 2019. There is also still no common definition of Area Mass Balance (AMB) for the feed industry.
- Solution Issues with evidence of certification remain, with documentation frequently stopping at the point of importation.



# Approach

# Consistent, unified approach

Eleven European retailers<sup>1</sup>, including 94% of the UK grocery retail market, work with 3Keel to use a standardised process to answer three primary questions on soy:







#### Scope

The scope for the 2019 data collection expanded upon that set the previous year. With more than 93% of soy use in retail supply chains being through animal feed, data was only collected from suppliers delivering products from animal origin as whole animal proteins (e.g. chicken meat, eggs) or where they were used as ingredients in prepared foods (e.g. sandwiches, pies).

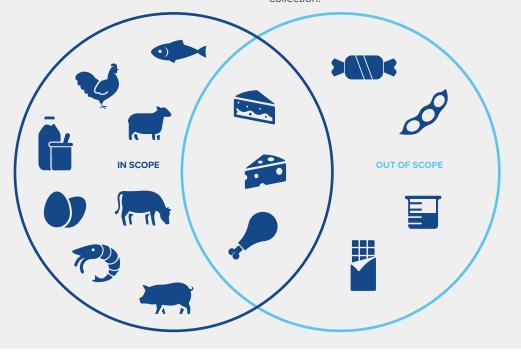
2019 saw several retailers increasing the scope of their policies and associated reporting requirements, meaning the number of manufacturing businesses using animal proteins as an ingredient engaged increased significantly. There was some variation on the definition of what these animal protein ingredients were, extending from only direct use of whole proteins (e.g. chicken on a pizza), to use of processed ingredients (e.g. dairy powders), and even by-products in some cases (e.g. animal fat). As the byproducts of animals are used in various capacities there are questions that arise dependent on the nature of the composition, quantity and critical nature of the material to the product.

Due to these inconsistencies in retailer policies on disclosure and action on soy, some data may be missing from this assessment where certain ingredients may have been outside the scope of a particular retailer's data requirements. Although these

differences are present, the vast majority of soy is included due to the relatively small contribution from those types of materials. In general, the scope of assessment is shown in the diagram (below), with any product that is visibly from an animal being included whilst those that are compound ingredients, derivatives (e.g. gelatine in confectionary, chocolate in a cookie), or direct soy (e.g. soya lecithin, soy milk) were excluded. This scope ensures that the assessment is focused on the products with the highest impact, and

where suppliers are likely to have access to sufficient information to be able to submit the required data.

The data presented in this report is for European retail sales only. As not every European retailer participated in this work, the full European retail soy footprint is not provided by this research. Any comparisons to 2018 results have been made using data only from the UK from the 7 retailers who were also involved in the 2018 data collection.



1 ALDI South, Asda, Co-op (UK), Lidl (UK), Marks & Spencer, METRO, Morrisons, REWE, Sainsbury's, Tesco, and Waitrose & Partners

# Quantifying the soy embedded within products

The proximity of the reporting company to the soy importer directly impacts on their ability to provide detailed information on the feed content and origin.

For livestock suppliers the level of visibility of their soy supply chain is dependant on the particular production system. For integrated feed supply chains, such as those for poultry, there is a close link with the feed supplier, or even the soy trader if they mix their own feed. Conversely other proteins, such as beef, often source from a large number of independent producers, with

very little visibility or control over the feed used. Although many companies sampled their supplier base for information on feed mixes, the quality of information provided was highly variable. For all animals, the use of different feed mixes throughout the life cycle of the animal also added complexity.

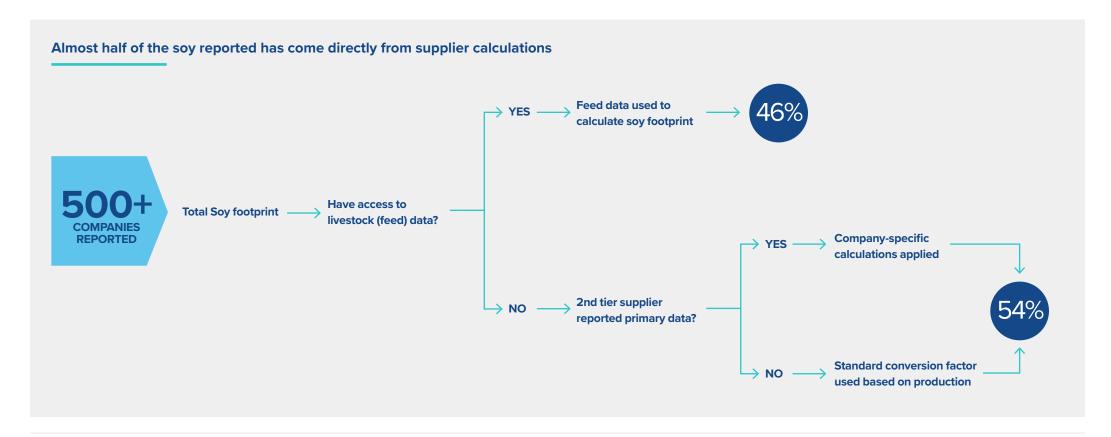
For companies purchasing animal products as an ingredient for a manufactured product, where the likelihood of them having any direct contact with the livestock producer is limited, visibility beyond their direct supplier is mostly not available.

With the above in mind, the approach taken to quantify soy within the supply chain was designed to be tailored depending on the level of information the supplier has access to, with conversion factors used where needed. These were based on information provided by the supplier, including rearing location.

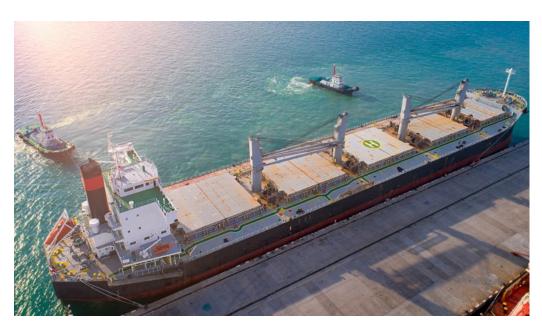
The ability of key protein suppliers to provide primary data - such as the Feed Conversion Ratio (FCR) and soy content in feed - has remained consistent, with 1 in 5 suppliers providing this data.

Overall, the proportion of the total soy footprint derived from primary data has decreased from 2018, to 46%. This is due to the introduction of new retail supply chains, and widening of scope to include many more processed food manufacturers.

See protein-specific conversion factor information and sources used in the Appendix.



# Certifying 'deforestation and conversion free'



With many retailers requiring evidence of 'deforestation free' supply as part of their soy policies, any claims must be supported by evidence that is appropriate to the certification mechanism being used. Therefore, as part of the validation process of the received declarations all suppliers were requested to provide evidence of any claims of the use of soy certified to a deforestation free standard.

Some suppliers, especially those with consolidated supply chains, were able to provide comprehensive evidence. Other companies were not able to provide this, and this was often due to limitations of the certification standards and supply chain transparency, rather than a complete lack of evidence. Five classifications were therefore used to reflect the degree of certainty associated with claims. The requirements to

meet a classification differ according to the certification standard claimed, as on the following page.

#### Standards addressing land conversion

Over 50 certification standards are offered for soy, and a large number of these are used widely within industry. This is in contrast to other commodities such as palm oil, for which very few certification standards are commonly used and accepted.

A number of assessments have been carried out between 2015 and 2019 to assess the degree to which soy certification standards deliver on 'zero deforestation', with a lack of consensus over which standards meet the criteria for 'deforestation free'. Within this report, the named certification standards are those which are accepted within the policies of at least one of the retailers involved in this reporting process.

#### Categories for classification of certification evidence



This category is only available for mechanisms that show physical flows of materials, whether due to certification or low risk origins. In the case of Mass Balance or Segregated claims, evidence must be shown to prove chain of custody of the certified materials. This is demonstrated through site certification and exclusive allocation of certified materials to a retailer.



For mechanisms which do not demonstrate physical flow, this is the highest category available. This covers claims from credit systems where sufficient evidence can be shown that these credits have been exclusively allocated to that retailer. In the case of RTRS credits, this is only the case when these have been transferred to the named retailer's account on the RTRS system.



The reporting company has supplied some evidence which demonstrates certified materials/credits have been purchased, however it is not clear that these have been exclusively allocated to a specific customer.



Evidence chain of certified materials breaks at the 2nd tier supplier level, with insufficient documentation provided to show flow to the reporting company. Alternatively, public statement of intent to show that credits will be purchased to cover entirety of supply.



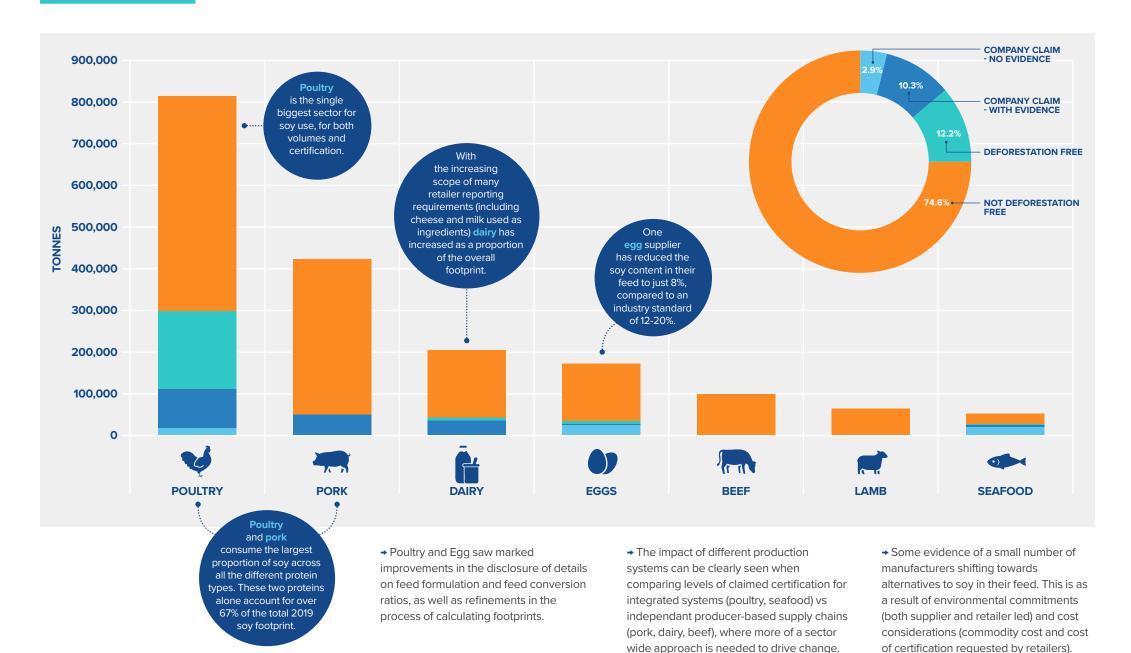
Insufficient/no evidence has been provided by the reporting company to back up any certification claims. This also covers any other claims that fall outside of the list of accepted standards (e.g. FEFAC, Non-GMO) as they do not have provisions for protecting against all forms of deforestation.

# Classifying certification evidence

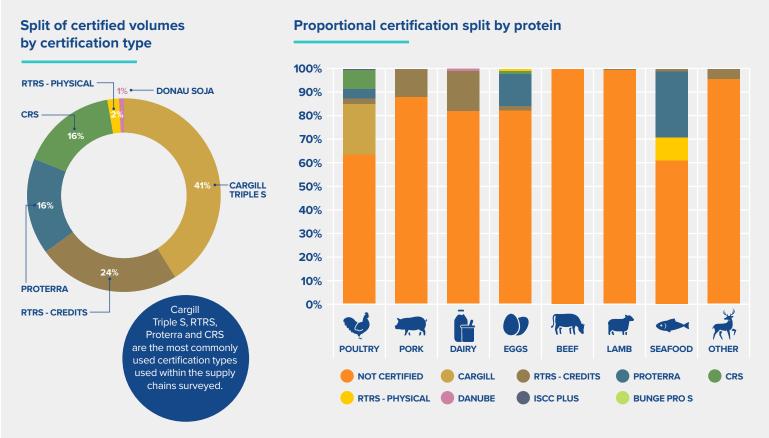
			ire d	State of the state	COMPAN	Accounter Congress	activity activity
	Mechanism	Evidence			0 4		44
RTRS	Credits	Transferred to Retailer		✓			
		Reporting company RTRS account			✓		
		Supplier RTRS Account - linked to reporting company			<b>✓</b>		
		Supplier RTRS account - not linked to reporting company (eg. 3rd tier supplier)				<b>~</b>	
		Sector Initiative				<b>~</b>	
		Statement of Intent				<b>~</b>	
	Mass Balance / Segregated	Site Certification of reporting company	✓				
		Exclusive allocation from certified supplier to reporting company (non-soy handler to retailer)	✓				
		Exclusive allocation from certified supplier to reporting company (soy handler)			<b>✓</b>		
		Indirect supplier site certification only				<b>✓</b>	
ProTerra	Mass Balance / Segregated	Site Certification of reporting company	✓				
Danube		Exclusive allocation from certified supplier to reporting company (non-soy handler to retailer)	✓				
ISCC Plus		Exclusive allocation from certified supplier to reporting company (soy handler)			<b>~</b>		
		Site certificate provided				<b>~</b>	
CRS	Credits	Reporting company purchased certified materials		<b>~</b>			
Cargill Triple S		Supplier purchased certified materials - linked to reporting company			<b>~</b>		
Bunge Pro S		Supplier purchased certified materials - not linked to reporting company				<b>~</b>	
Organic		South American Origin					✓
		Other Origin	✓				
Origin		Trader or feed supplier declaration	<b>✓</b>				

# Results

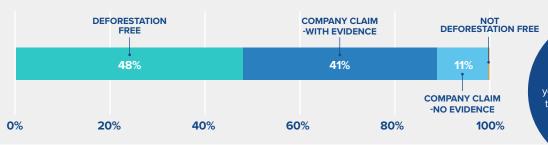
# 2019 Soymeal Footprint - 1.85M tonnes



# **Certification Systems**



#### Categorisation of soy volumes claimed to be certified to a deforestation free standard



When
expanding the
view of certification to
include all European
retailers involved in this
year's reporting, 25% of the
total soy footprint for 2019
was claimed to meet a
deforestation free
certification
standard.

- → When comparing year-on-year for UK retailers involved in both years reporting, the amount of soy claimed as certified has increased from 26% in 2018 to 30% in 2019. This is largely due to increased usage of certification within the poultry industry which, as the largest user of soy, has been a particular focus for retailer policies.
- → Like-for-like comparisons between the 2018 and 2019 data also reveal a shift in certification standards used. Usage of CRS certification has decreased significantly whilst Cargill Triple S and RTRS credit certifications have become more prominent.
- → Quality of evidence provided was strongly linked to the certification type. Certificates for physically certified materials usually name the importer, which makes it difficult to trace the certified volumes to the retail supplier as the feed users are not also certified. Credit claims are usually well evidenced with credits listed against the retail supplier.
- → In many cases, companies have not been purchasing credits or transferring them to the retailer until they are asked to do so at the end of the reporting process. For the 2019 reporting year, RTRS credit claims for retail supply chains are only visible in the RTRS platform for the company holding the credits. This means that

to the retailer in the RTRS system to have their claim fully verified. The impact of this was that many RTRS credit claims could only be categorised as 'Company claim with evidence'.

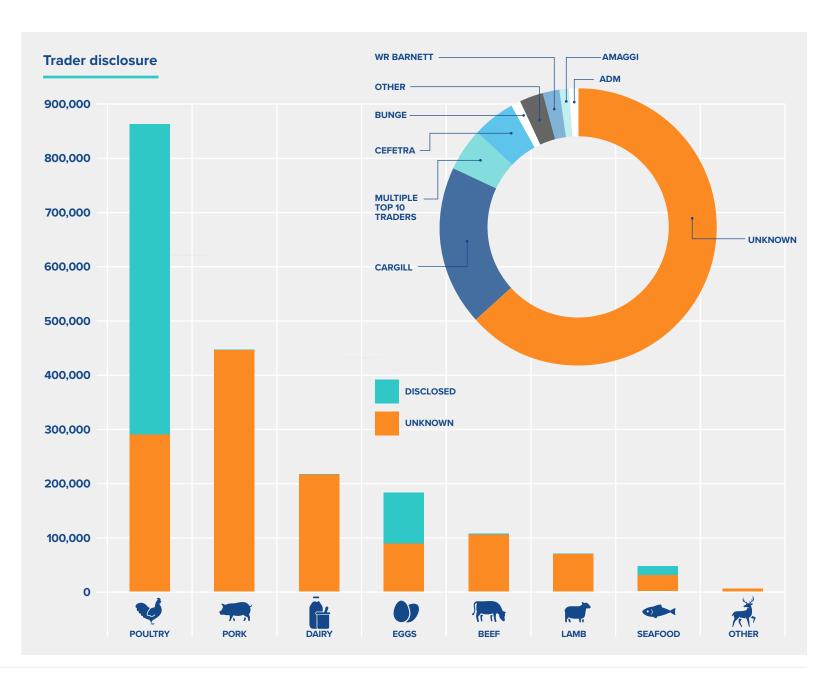
The supply chains of poultry and seafood are most likely to use certified soy. These groups have been where many retailer policies have targeted first, due to their impact - both in terms of soy volumes and direct influence on the feed industry. Certification is rare in the supply chains of beef and lamb, which are largely reared by independent producers.

# Transparency of supply chains (traders)

- → The majority of soy used in retail supply chains is not able to be disclosed to origin or importer. When comparing disclosure between this year and last, some improvement can be seen due to retailer efforts to improve transparency within the supply chain. However, disclosure still remains low and further improvements are needed in order to assess the deforestation impact of soy and identify which traders to engage with.
- → As would be expected, most physically certified soy can be linked to a named trader and location of origin.

#### Soy Importers

- → The degree of transparency differs by protein type, with integrated systems such as poultry, eggs and seafood production as the most transparent. This is due to these reporting companies' proximity to the soy importer, with many of these companies buying feed directly, or even in some cases buying soy to mix their own feed.
- → Cargill was the most commonly identified trader in the industry, being named as the importer for 19% of soy in the supply chains surveyed. Whilst this is consistent with Trase data (Trase, 2018), soy volumes with Bunge, Glencore and Louis Dreyfus as named importer were lower than expected. This suggests that these traders may be more commonly used within the less integrated soy flows, where transparency is lower.



# Transparency of supply chains (origin)

#### Soy Origin

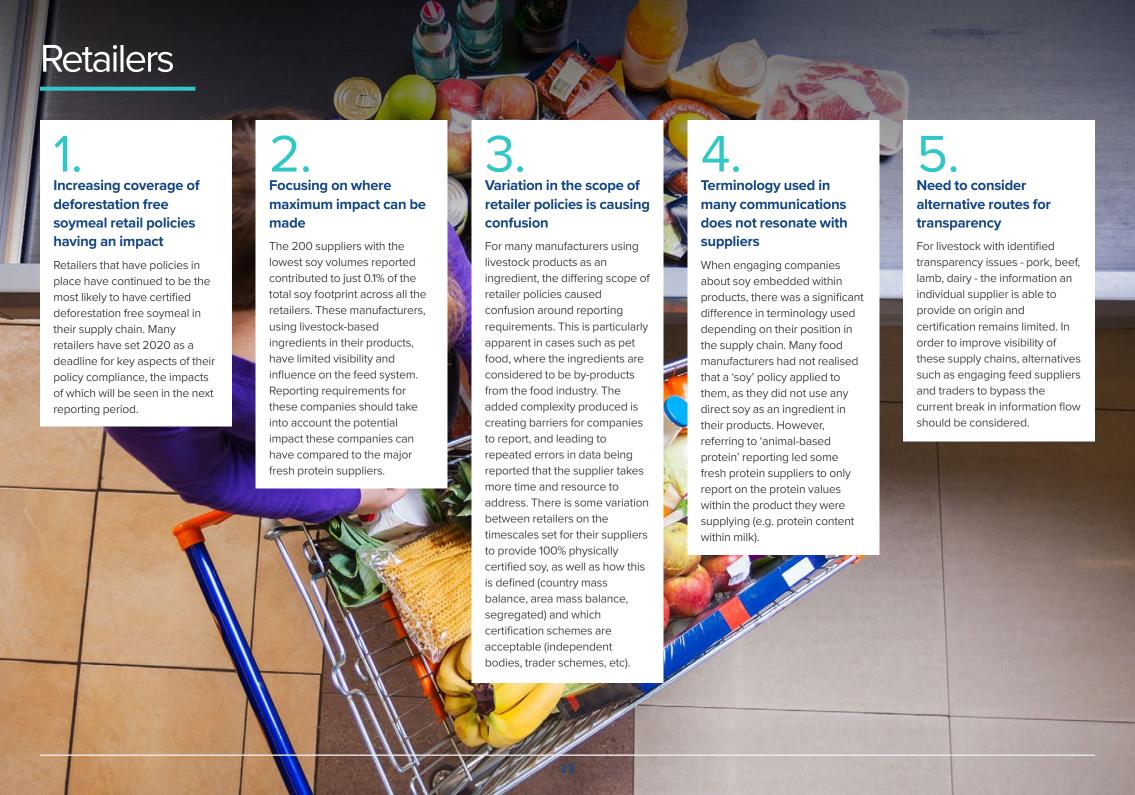
- → Where a location of origin was specified, Brazil was the most common producing country, representing almost 20% of the total soy volume. This was expected, with Brazil estimated to import over 36% of all soy into the EU (IDH, 2020). The majority of these volumes are being declared within the poultry supply chains.
- → A further 15% of soy is directly linked to the South American continent. We know from existing research that Argentina is also a prominent sourcing location for European supply chains, particularly for soy meal where the imported volumes are similar to those of Brazil (IDH, 2020).
- → Of sub-national regions which were named, Mato Grosso in Brazil was the most common.
- → Most unidentifiable origin soy is purchased as "any origin" within the feed specification.

  Disclosure of origin does not necessitate a change to this practice, but transparency could still be provided.



# Findings

#### Key Findings During the second year of this collective soy data collection process, we have seen progress Retailers continue to be a **Transparency and** One size approach does **Examples of switching to** in some areas, particularly regarding increasing awareness significant driving force verifiable information not fit all for driving soy alternatives on the topic of soy in feed. for deforestation free soy challenges persist progress forward The process has highlighted However, we have also seen examples of a small number of For suppliers from the more Both detailed origin information Progress has continued on some issues which remain companies switching away from integrated supply chains (e.g. (down to country or sub-national transparency and certification significant blockers to soy to alternative proteins for region) and certification for proteins with integrated feed chicken, eggs) that have been meaningful progress towards their feed mixes. This switch has evidence flows (particularly within scope of the reporting supply chains such as poultry, zero deforestation goals across been driven by various factors. process for over a year, their chain of custody certification) driven directly by retailer the industry. These include the company's understanding of quantifying have not seen any significant policies. However, these have own environmental ambitions, soy within the supply chain and improvement from the previous had little impact on the supply demand generated by retailers, certification requirements are year. This demonstrates that chains which rely on a large and the relative cost of soy as a number of independent improving. However, the transparency remains as a commodity. Where certification significant stumbling block to prevalence of supplier policies producers (e.g. pork, beef, is a requirement within retailer incorporating specific, ensuring a fully traceable soy lamb). In these cases, system policies, suppliers are also measurable targets on supply chain. wide approaches are needed to weighing the costs of transitioning to deforestation address traceability issues. compliance (through additional free, or physically certified, soy cost of buying certified remains low. materials, or of purchasing credits retrospectively) with the relative cost of soy alternatives.





# Recommendations

# Leveraging your area of influence for change





- → Work collaboratively with other members of value chain to ensure supply of physically certified soy is available to meet demand.
- → Ensure that this transformation is happening in a way that is transparent, cost effective and responsible.
- → Feed standards should include the option of deforestation free soy.
- → Transfer of certification claims and origin information after the point of importation.



#### Supply Chain

- → Engagement of feed suppliers and traders on developing demand for the flow of deforestation free soy into Europe.
- → Incorporating deforestation free soy and soy origin transparency into feed specifications or supplier requirements.
- → Improving knowledge of soy used in supply chain and certification options.
- → Standardise public reporting approaches.



#### Retailers

- → Alignment of soy policy definitions.
- → Focus attention on key suppliers who make up the largest part of soy footprint.
- → Support the need for systems change where necessary.
- → Standardise public reporting approaches.



#### **Policy Makers**

- → Support due diligence requirements for companies to limit the deforestation risk of supply chains.
- → Support the development and improvement of certification and supply chain standards.
- → Define what requirements standards need to have to be recognised as delivering sustainable soy.
- → Promote data transparency at the industry level by making data available in a usable format for assessing progress.

# Solving the transparency issue - Soy Transparency Coalition

In response to the issues around transparency within the soy supply chain, and the need for system level change, in 2020 3Keel launched a first of its kind trader assessment of soy traders.

This assessment will be run as part of the new Soy Transparency Coalition (STC), a collection of over 30 global businesses - from retailers, to manufacturers, to livestock producers.

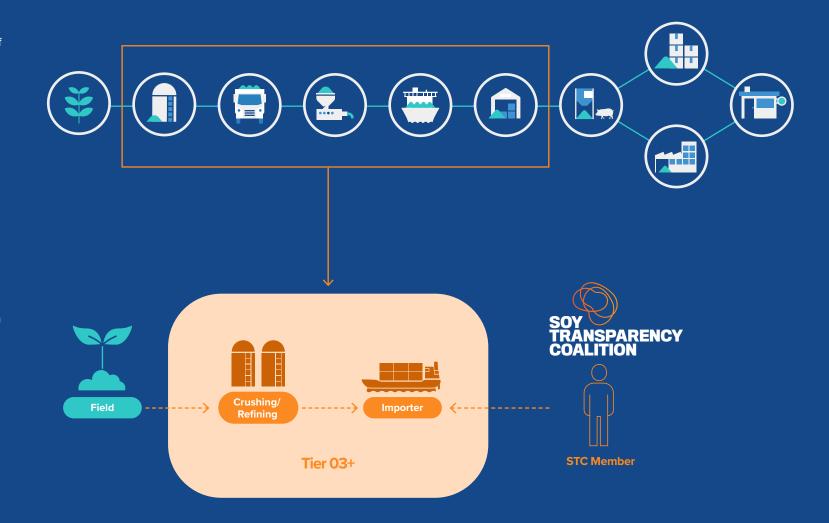
As relatively few companies are present in the soy trade out of South America, focusing on transparency with these businesses will efficiently identify responsible suppliers that are proactively seeking to address key environmental and social issues.

The assessment will bypass the visibility issues downstream of the importers and feed companies, instead gathering information directly from the traders who are exporting and importing soy. The assessments will cover certification levels and origin, as well as many other aspects of sustainable soy production.

Tailored scorecards produced as an output from the STC assessment, coupled with the producer and manufacturer level data from the collective retail soy initiative, will give companies a more complete view of the total soy supply chain and a better understanding of progress made and where to focus future efforts to make the biggest difference.

If you are interested in joining the STC, get in touch at info@soytransparency.org

Soy Transparency Coalition's focus is on the narrowest point in the supply chain





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# Appendix

## Beef & Lamb

Most of the European cattle industry is a mixture of pasture and grain fed cows in a largely independent producer sector. Farmers are often rearing a mixed herd composing dairy and bull varieties that have variable diets. Some farmers do not use any soy within their feed ration, whilst others have been surveyed to use up to 11% soymeal in their feed mix.

Lamb can be seasonally produced in the UK or New Zealand. Some information was provided from farmers and feed, which showed significant variation among farmers, with some using no soy and others using up to 24% soy within their feedmix. Often, soy was used in feed for only part of the animal's diet, in a 'finishing diet'. New Zealand lamb, however, is produced almost exclusively within a grazing system. The figures

provided in this report have assumed that lamb from New Zealand does not have a soymeal footprint due to the known production methods used in the industry and the absence of information. This is a knowledge area that should be improved by supply chain actors; where soymeal was estimated to be present, very few suppliers were able to provide information regarding its origin or certification status.

0%-24%

2019

Soy content in feed

0%-18%

2018

SOUTH



= 10 TONNES OF DEFORESTATION FREE CLAIM

## **Butter & Cheese**

Limited information was able to be provided from suppliers of butter and cheese. The companies that are responsible for reporting this information may make dairy products from a variety of sources that may not always be able to link back to the independent producer system they originate from.

surveys among their farmers to obtain information on soy, including origin,



= 10 TONNES OF DEFORESTATION FREE CLAIM

# Eggs

Egg producers have good access to the soymeal content information associated with their feed. As a direct cost for centralised production systems, these inputs are monitored well.

Where producers haven't been able to provide this information, an average weight of 58g per egg was used to estimate the soymeal using a



= 10 TONNES OF DEFORESTATION FREE CLAIM

# Milk

= 10 TONNES OF DEFORESTATION FREE CLAIM

= 10 TONNES OF NOT CERTIFIED DEFORESTATION FREE

A few major dairy producers contract directly with farmers throughout the UK for the majority of fresh milk and dairy supply. Non-UK dairy is a small part of the overall supply into UK retail markets. The sector is largely consolidated with just a few major producers, some of which have company policies to purchase deforestation free soymeal credits and/or certificates to address the soymeal impacts of feed. Where companies use these systems they often have their own feed models to estimate the feed ration and use within their supply chain. Some supply chains have removed soymeal from their dairy production.



## Pork

Rearing swine is the second biggest contributor to the European retail soymeal footprint. The pork industry is composed largely of independent producers that control their own



= 10 TONNES OF DEFORESTATION FREE CLAIM

= 10 TONNES OF NOT CERTIFIED DEFORESTATION FREE

370,722

# **Poultry**

= 10 TONNES OF DEFORESTATION FREE CLAIM

= 10 TONNES OF NOT CERTIFIED DEFORESTATION FREE

Poultry is the single biggest protein in the European retail soymeal footprint. As a major consumer of soymeal, it was one of the first proteins to be included within some retail policies for removing its potential contribution to deforestation in South America. The variations within poultry diets can be heavily affected by the production system it is produced in, with organic and free range birds often having a bigger soymeal requirement due to their longer lifespan compared to more intensive production systems.





# Salmon

The European salmon production industry is highly consolidated with just a few key feed suppliers. These feed manufacturers are largely committed to providing certified soymeal within their feed mixes, thus contributing to the relatively high proportion of feed that is certified compared to other livestock groups. Information related to the transparency of this system is also fairly well established with a number of suppliers able to identify the sub-national region of soya production. However, as with other proteins, little evidence was able to be provided with the salmon producer's name linked directly to the soymeal supply. As such, this livestock group has a large proportion of company claims associated with its supply.

2%-26%

2019

Soy content in feed



= 10 TONNES OF DEFORESTATION FREE CLAIM





# Other seafood

Soy is used in the diets of some farmed fish in addition to salmon, most notably shrimp, suppliers of which made up the vast majority of companies surveyed.

Shrimp production is largely concentrated in South East Asia, using feed companies based in the region. Similarly to salmon, only a small number of feed suppliers are used, and certification levels are high.



= 10 TONNES OF DEFORESTATION FREE CLAIM

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