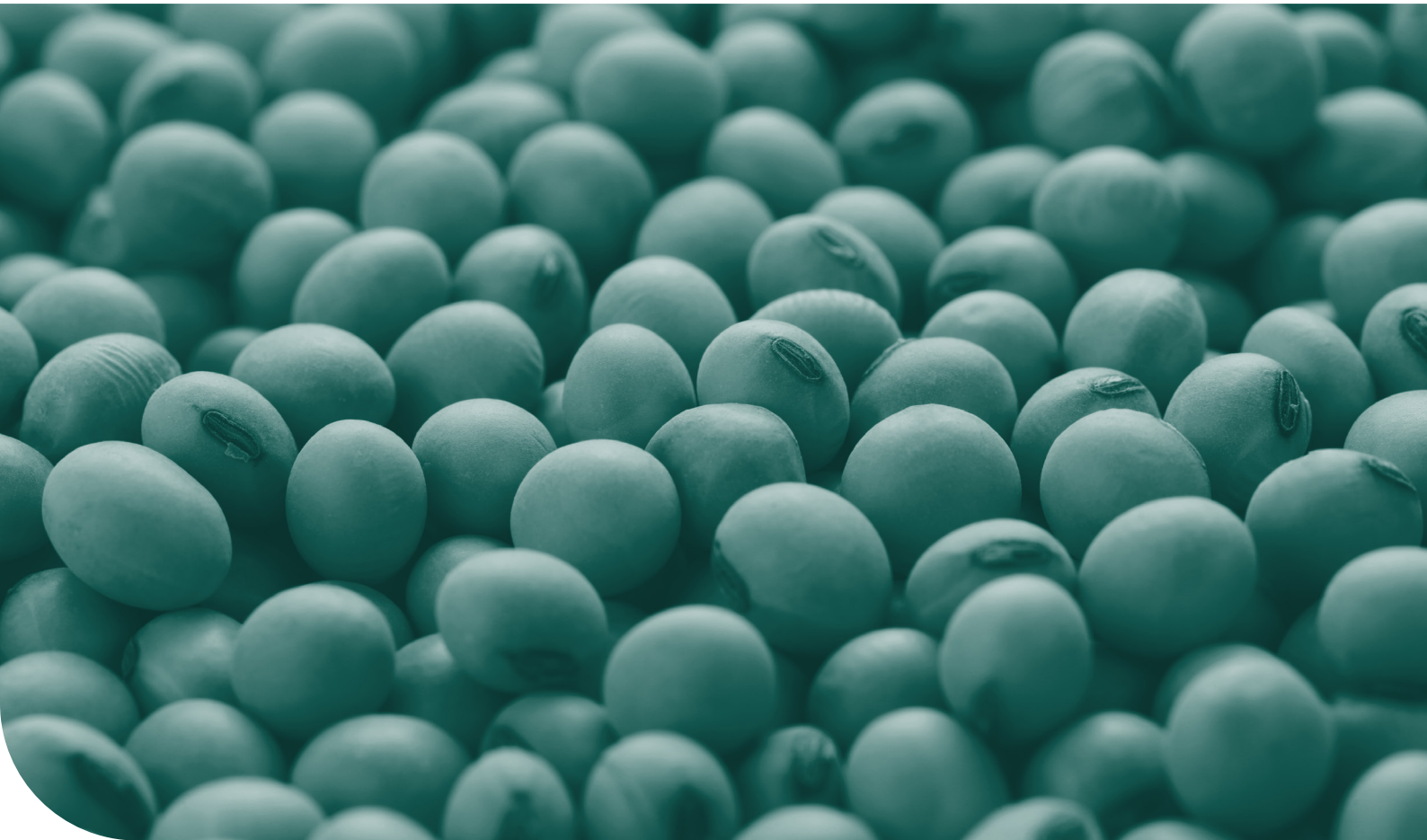

Introduction to Sustainable Soy

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1 What is soy, and why should companies in the UK explore their soy supply chains?



This guide is a collaborative effort between Efeca and Proforest for the UK Roundtable on Sustainable Soya, as part of the Soy Toolkit. The Soy Toolkit has been developed by Proforest as part of the Good Growth Partnership's Responsible Demand Project, thanks to financial support from the Global Environment Facility through World Wildlife Fund.

This guide was also produced with financial support from the UK Government via the Partnerships for Forests



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The Soy Toolkit is a capacity building programme presented in the format of a user-friendly guide to the many existing tools, initiatives and approaches that companies can use to decouple soy sourcing from deforestation, conversion of natural habitats and human rights violations.

Authors: Efeca and Proforest

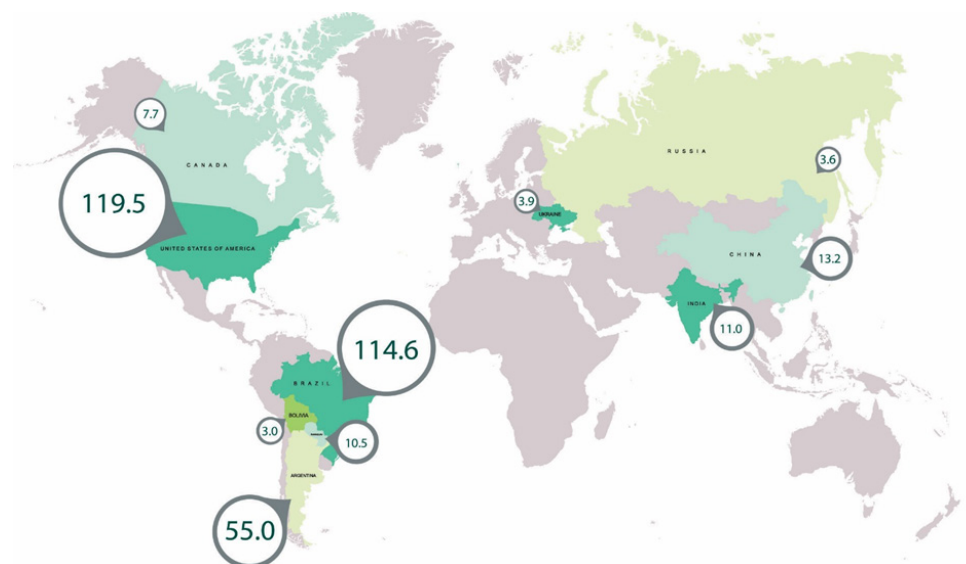
Purpose of this guide

The purpose of this guide is to provide an introduction to soy, how we use it, why we should source sustainable soy and to suggest some initial steps a company can take to develop and implement a policy on sustainable soy within their organisation and supply chain. It was developed by Efeca and Proforest for the UK Roundtable on Sustainable Soya, as part of the Soy Toolkit (www.soytoolkit.net).

What is soy and where is it grown?

The soybean or soya bean is a species of legume widely grown for its edible bean, which has numerous uses. Some food uses include some obvious products such as soymilk, tofu, soy sauce and soy oil and less evident products, such as soy lecithin. However, the increased demand for soy has been primarily driven by the meat and dairy industries since most of the world's soy is used in animal feed¹. The global production of soy has grown rapidly from 27 million tonnes in 1961 to 349 million tonnes in 2018². Global soybean production is highly concentrated, with about 80% originating from three countries alone: the United States, Brazil and Argentina³ (Figure 1).

Figure 1: Main soy-producing countries in the world (million tonnes of soybean produced in 2017)



Data source: FAOSTAT, 2018⁹

Country	Soybean production in 2017 (million tonnes)
USA	119.5
Brazil	114.6
Argentina	55.0
China	13.2
India	11.0
Paraguay	10.5
Canada	7.7
Ukraine	3.9
Russia	3.6

The different types of soy products: who are the big users and why?

Over 75% of the world's soy production is processed into soymeal and used for farmed animal feed⁴. For this reason, soy remains largely 'hidden' in human diets. The proportion of soy present in animal feed varies across different types of livestock. Poultry and pig feed contains the most soy, followed by cattle, farmed seafood and lamb.

Soy is also processed for human consumption (e.g. soymilk, soy flour, tofu, etc.) but this is a far smaller volume. Soybean oil can also be used as an alternative to palm oil in margarine, mayonnaise, cakes and pies, amongst other products. Soy oil is also used for producing the emulsifier soy lecithin and in biodiesel, increasing the spectrum of products where it is present (Figure 2). Figure 3 shows an estimation of the soy embedded in different products in the UK.

Figure 2: Products derived from soy

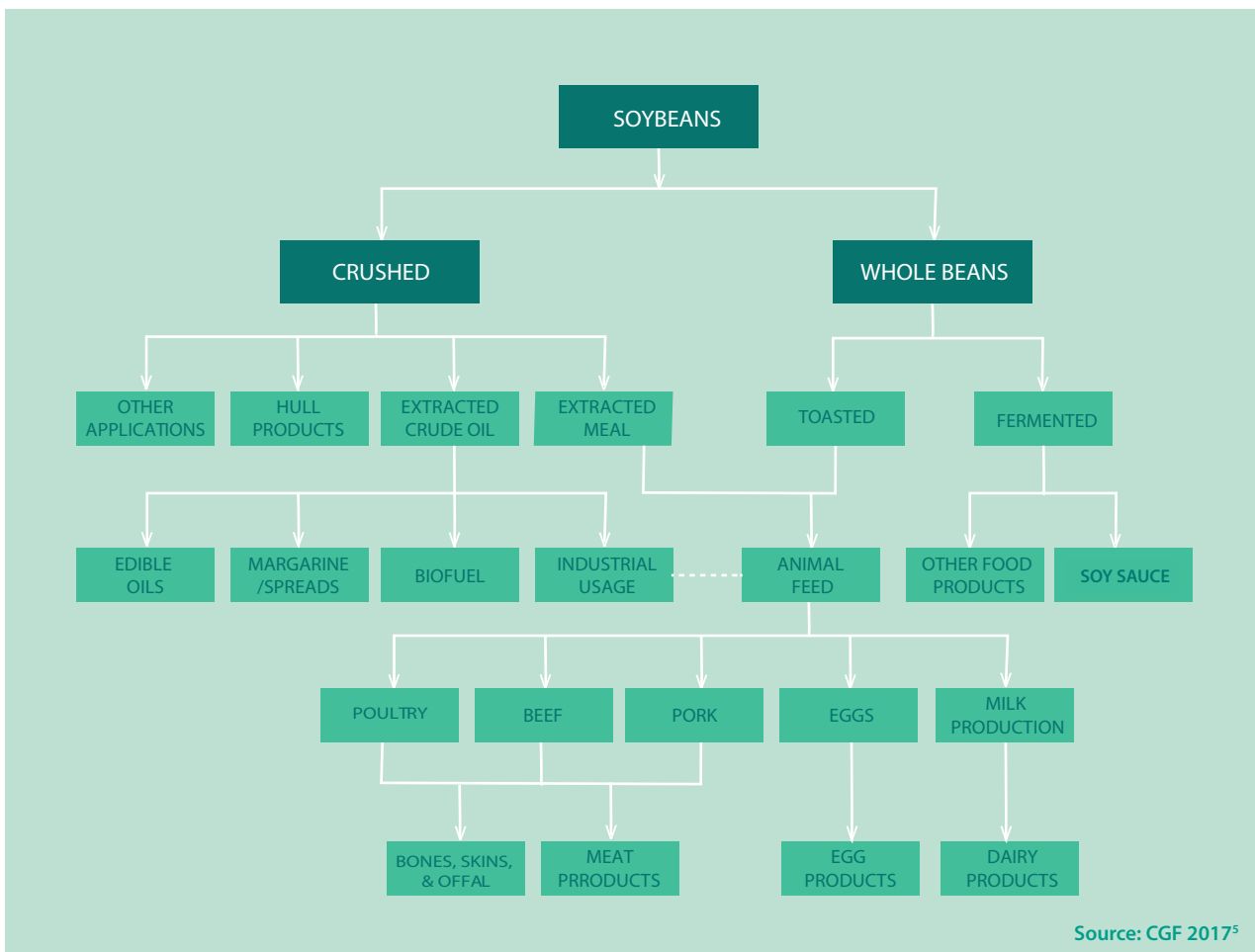
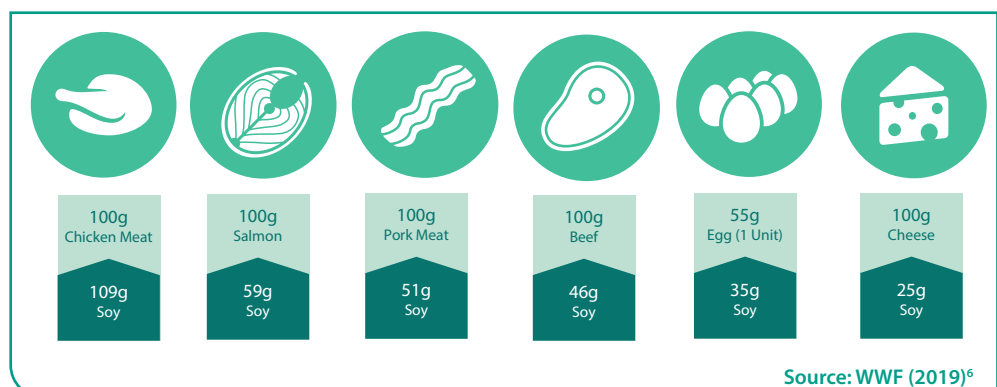


Figure 3: Hidden soy in human diets: an estimate of the amount of soy used to produce each product, i.e. the soy footprint of each product

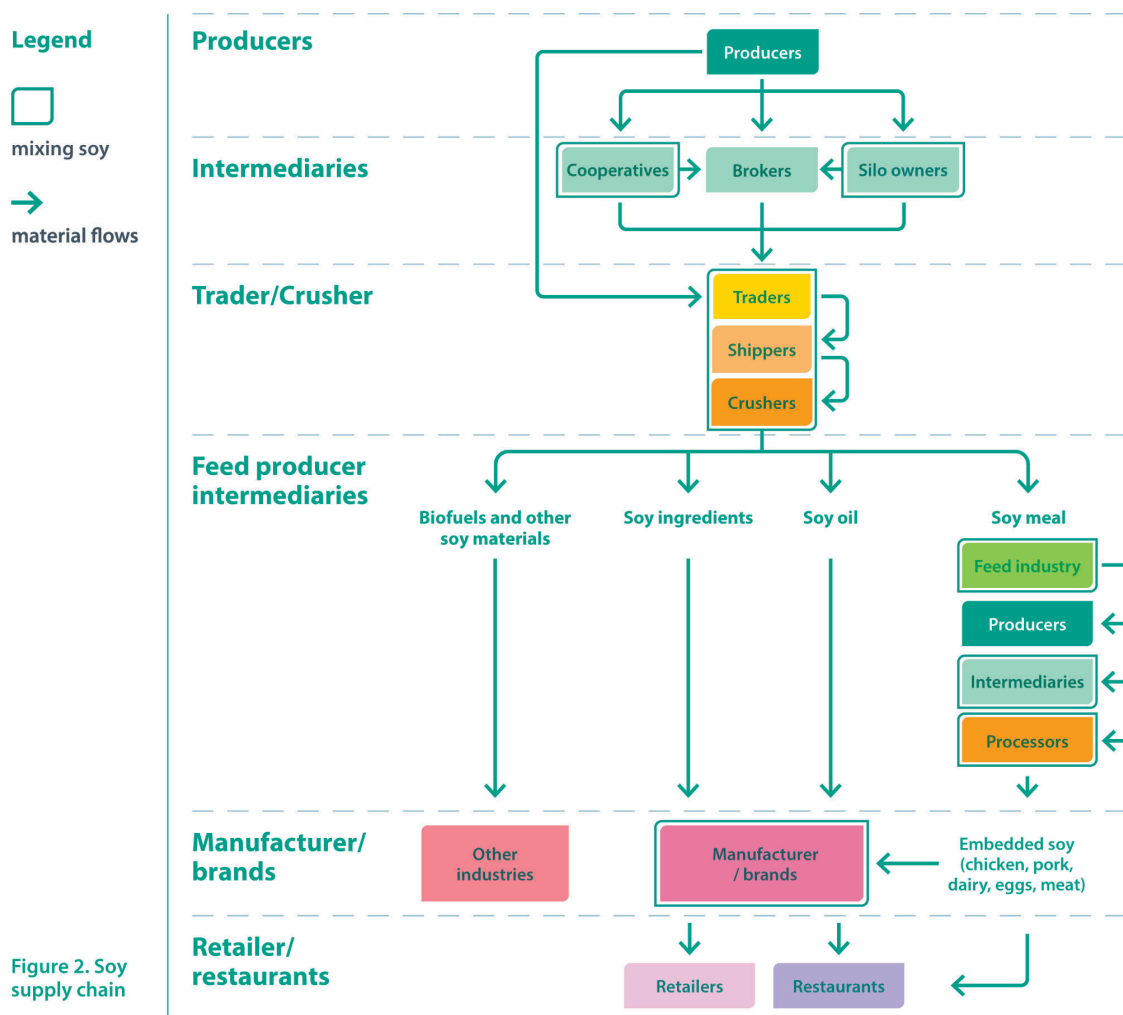


The soy supply chain

Understanding the soy supply chain is essential to understanding the source of soy (the country of origin) and the risks that it may be associated with deforestation. It can be helpful to think of the soy supply chain as an ‘hourglass’, with many soy producers in countries of origin feeding into a small number of traders/crushers⁷, who then sell to a larger number of animal feed producers in the UK and a much larger number of users (Figure 4). For this reason, there can sometimes be limited ‘real time’ visibility of where soy is being sourced from, as different shipments will be mixed during trading and processing. Soy destined for animal feed may be sourced from many different countries of origin (often described as ‘soy of any origin’) or from a specific country (for example poultry producers often require soy that has a higher protein content known as ‘hi-pro’ soy which may be sourced from Brazil).

Soy is a ‘just in time’ commodity, with users buying quantities frequently to suit their needs. This allows buyers to respond to the fluctuating market and price changes. Downstream users in the UK, such as protein manufacturers and retailers, can face challenges when quantifying the volume of soy used within their supply chains of animal protein, as they may buy products from a large number of meat producers/farmers who can choose to use a compound feed (a mix produced by a feed company) or to buy the soy separately and make their own feed, a process known as ‘home mixing’. These supply chain complexities mean that it can sometimes be difficult to easily access information on soy origin and sustainability characteristics.

Figure 4: The soy supply chain

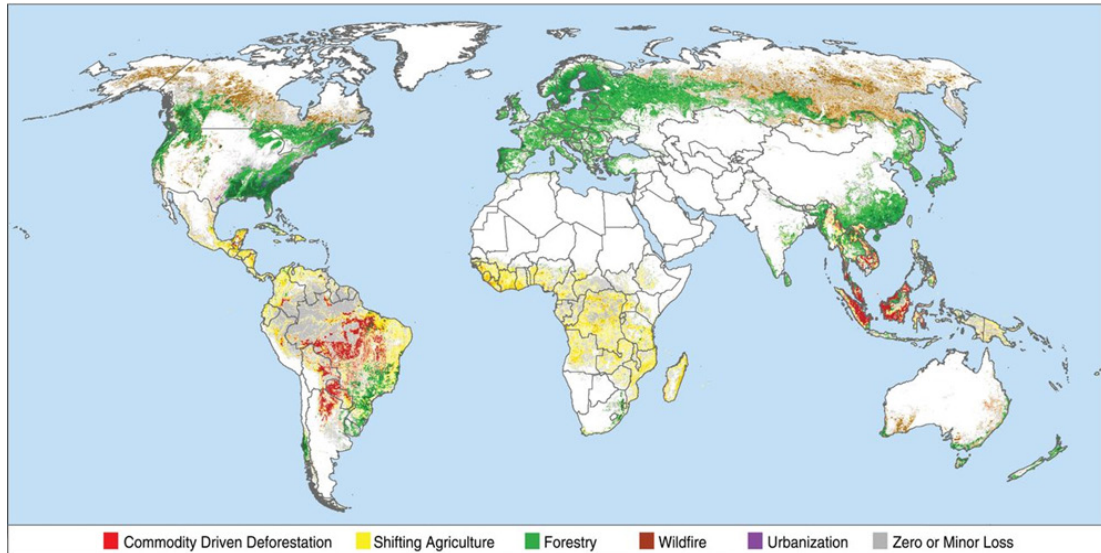


Source: The Soy Toolkit Briefing Note 02.A: Soy traceability and supply chain transparency⁸

Why explore soy in the supply chain?

Commodity expansion and shifting agriculture are considered key drivers of global deforestation and conversion of native vegetation in extensive regions of South American soy-producing countries (Figure 5).

Figure 5: Primary drivers of forest cover loss for the period 2001 to 2015



Source: Curtis et al. 2018⁹

A recent study showed that, after beef, soybean was the major driver of deforestation in Brazil, Argentina and Paraguay between 2005 and 2013, accounting for 10%, 33% and 31% of total deforestation in these countries respectively¹⁰. Land speculation and land grabbing are also part of the deforestation cycle in these countries and weak law enforcement fuels illegal activities that result in forest and other types of native vegetation loss. Biomes where native vegetation is at risk due to soy production expansion are mainly the Amazon, Cerrado and Chaco^{11,12} (Figure 8).

Where does the UK import soy from?

The UK imports soy in a number of different forms and from a range of countries including in the form of soybean, soy meal and soy oil (Figure 6). Most of the soy used in the UK is embedded in animal products such as meat, dairy and eggs produced in the UK but these products can also be imported from non-soy-producing countries (Figure 7).

Figure 6: Direct soy flow into the UK through imports (thousand tons)

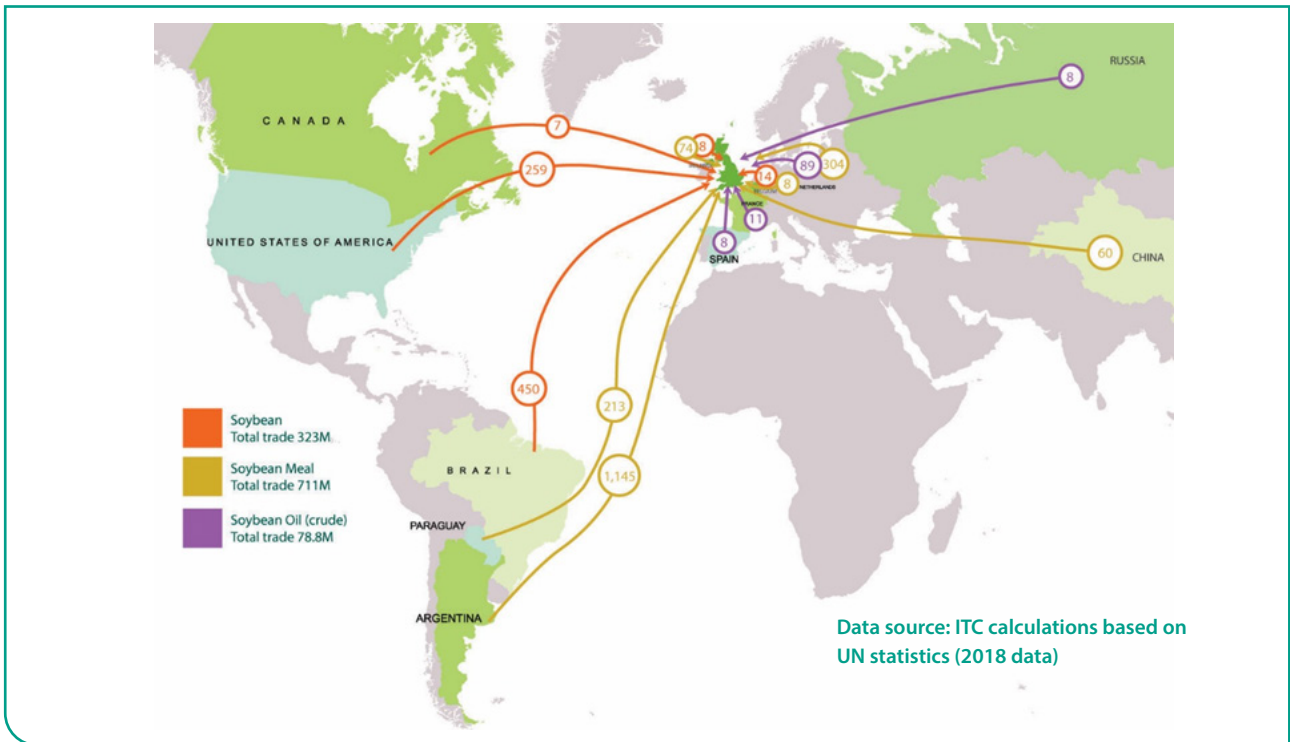
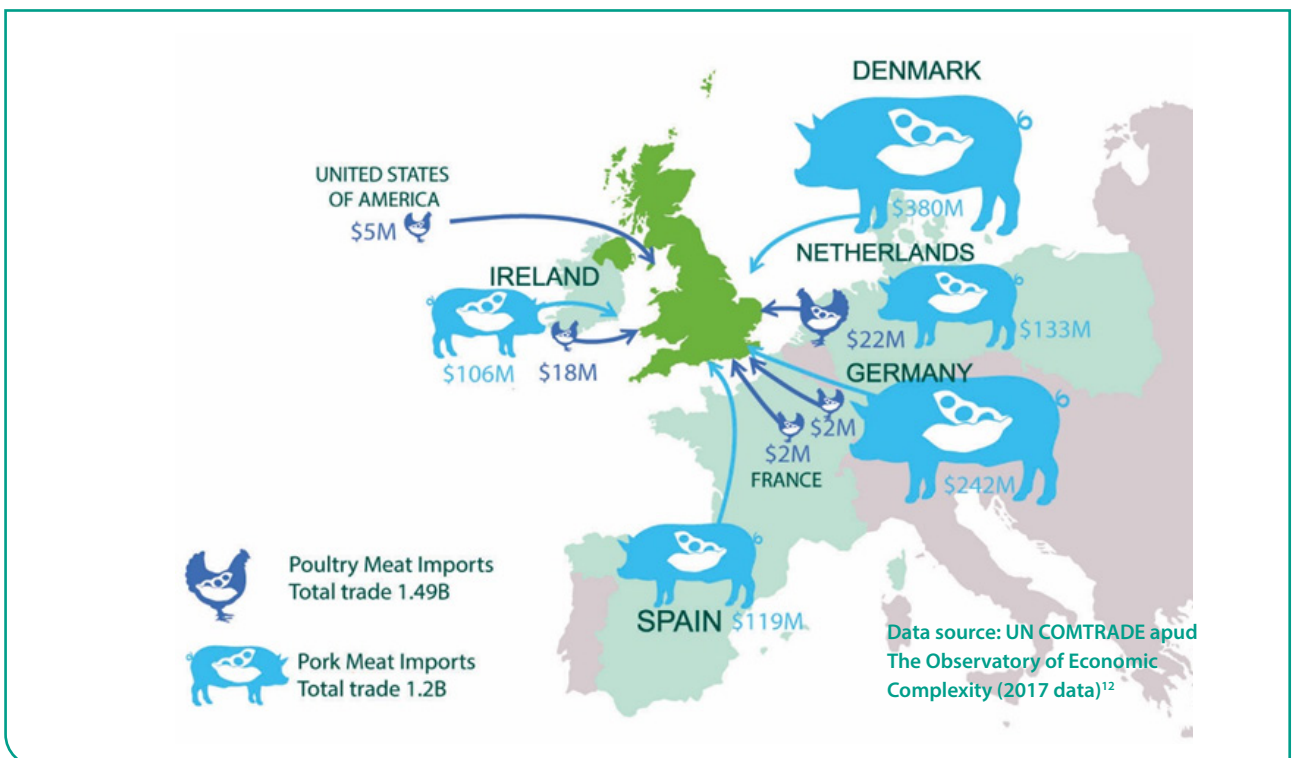


Figure 7: Direct flow of products with high soy footprint into the UK through imports (USD)

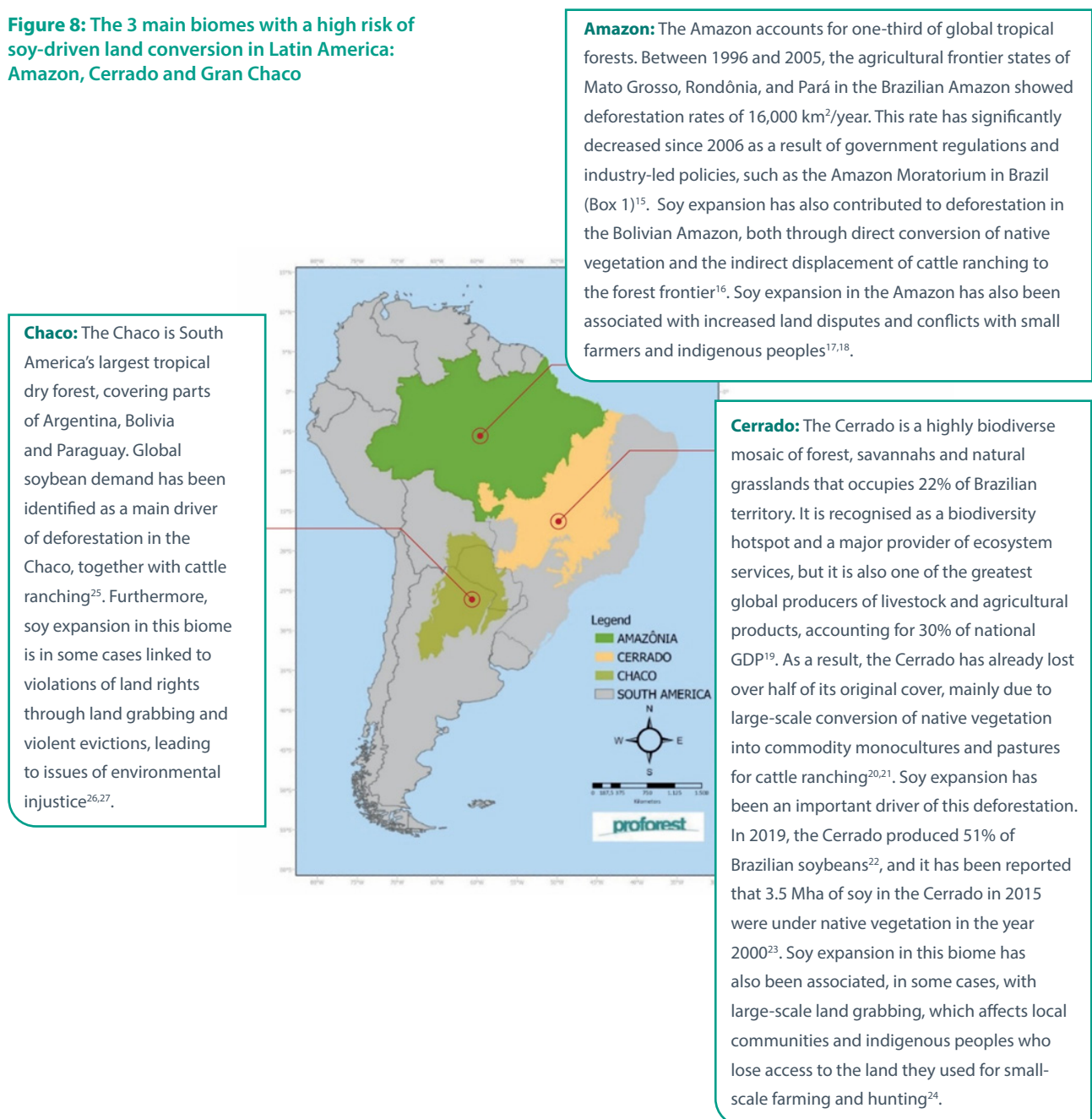


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In 2019 approximately 68% of the soy imported into the UK came from countries with a greater risk of conversion of natural habitats: Brazil, Argentina and Paraguay¹³ (Figure 8). Domestic concern and pressure from consumer countries has led to the establishment of several initiatives aiming to reduce deforestation in these highly biodiverse ecosystems, such as the Soy Moratorium in the Brazilian Amazon¹⁴.

Individual companies are also making increased efforts to ensure that the soy they source from South America is not linked to deforestation. Furthermore, there is increasing scrutiny from civil society, and this attention covers a broad spectrum of issues. For example Greenpeace's report '[Winging it](#)' focuses on the UK's consumption of meat as the driver of soy usage and champions a transition to plant based diets, whereas [Mighty Earth's](#) focus is on efforts to reduce the environmental impact of soy production and company practice in South America.

Figure 8: The 3 main biomes with a high risk of soy-driven land conversion in Latin America: Amazon, Cerrado and Gran Chaco



Box 1: The Amazon Moratorium

The Amazon Soy Moratorium is a commitment of the Brazilian Vegetable Oil Industries Association (ABIOVE) and the Brazilian Association of Cereal Exporters (ANEC) not to trade or finance soy in areas that were deforested in the Amazon biome after 2008. Using a geospatial approach in critical municipalities, deforestation to soy, as well as a producer's presence on the embargo list and slave-labour list are monitored to produce a list of non-compliant farms for the crop season. This list is shared with signatories and they are expected to block those farms in their purchase control system and present a third-party verification report annually. For upstream companies it provides an internationally credible framework and monitoring system to buy and sell soybeans not associated with deforestation in the Amazon biome. Downstream companies buying from traders who are signatories and who fully comply with the Moratorium can claim they source deforestation-free soy in the Amazon biome.

More information available on: <http://abiove.org.br/en/sustainability/>.

What to do next?

Please refer to the *Introduction to sustainable soy guide 2: where can companies in the UK start?* In this guide we present a suite of options companies can explore to increase their understanding of soy in their supply chain, and actions that can be taken to support sustainable soy production and trade.

Where to go for more support

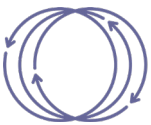
More information on the [UK Roundtable on Sustainable Soya](#) can be found on the Efeca website. Efeca is the facilitator of the UK Sustainable Soya Initiative which is supported by the [Partnerships for Forests Programme](#), funded by the UK Government. The Roundtable is free to join, and members receive news updates and support on developing sustainable soy policies and putting commitments into practice. Contact us via info@efeca.com

More information is provided at www.soytoolkit.net. We are able to provide free-of-charge training and webinars for companies who need assistance with implementation of their responsible sourcing commitments for soy.

Contact us via soytoolkit@proforest.net.

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- ³The Observatory of Economic Complexity, 2019. Data based on 2017 information and only accruing for soybean, not including soybean meal or soybean oil.
- ⁴https://www.wwf.org.uk/sites/default/files/2019-10/WWF-UK_Retailers_Soy_Policies_October2019.pdf
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- ⁷The four largest traders are commonly referred to as the 'ABCDs', representing ADM, Bunge, Cargill and Louis Dreyfus
- ⁸<https://www.soytoolkit.net/element2>
- ⁹Curtis et al 2018 <https://science.sciencemag.org/content/361/6407/1108>
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