

Scope 3: Reducing CO₂-Emissions with Donau Soja / Europe Soya certified animal feed

Scope 3 emissions represent the hidden – or indirect – Greenhouse Gas (GHG) emissions within a company's supply chain and are responsible for the largest part of its environmental impact by far. For retailers, for example, these emissions constitute the lion's share of their total GHG emissions through the thousands of products, especially animal-based products, in their assortment. Through the use of Donau Soja / Europe Soya certified soya beans, companies that produce or sell animal-based products, can significantly reduce the emissions along their supply chain.

Background

Large companies like retailers are required to report on their GHG emissions, which consist of scope 1, scope 2 and scope 3. The scope 3 emissions of retailers consist of all emissions created throughout the value chains, from the farmers to the grocery stores and the consumers. Therefore, scope 3 accounts for up to 90% of retailers' overall emissions [1; 2].

Especially scope 3 emissions of animal-based products have a huge impact on the environment due to the use of soya in the animal feed. Most of the soya is imported from South America, where forests are being cleared and valuable ecosystems are converted into agricultural land on an

unimaginable scale, leading to large CO₂-footprints of animal products.

Donau Soja and Europe Soya exclude deforestation and land conversion with an early cut-off date (2008). Studies have shown that switching to Donau Soja / Europe Soya certified soya feed significantly reduces emissions by up to 40% in animal-based products. Donau Soja provides the relevant datasets to calculate CO₂-emissions of soya beans and derived products, and as such supports its members and certified partners in their voluntary and mandatory reporting obligations for CO₂-emission reduction.

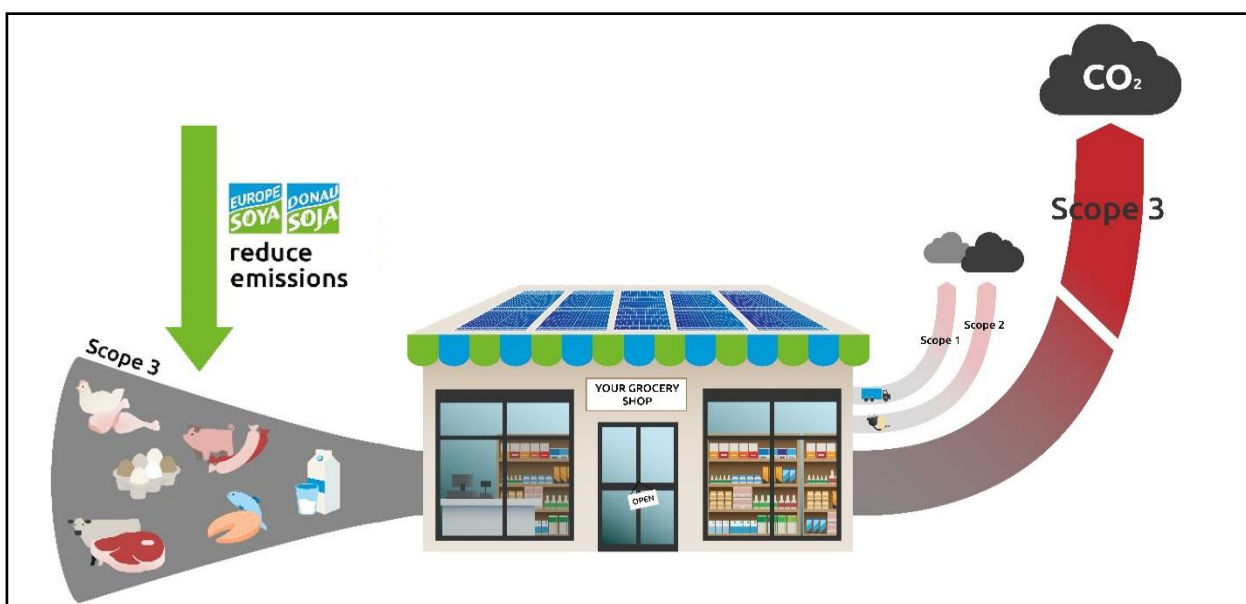


Figure 1: Illustration of scope 3 emissions within the value chain of retailers (Donau Soja)

How Donau Soja Supports Tackling Scope 3 Emissions

Donau Soja / Europe Soya certified supply chains ensure that soya is only cultivated on land that was dedicated for agricultural use not later than 2008 and therefore protect valuable ecosystems. This is one of the reasons why the CO₂-footprint calculations of Donau Soja / Europe Soya soya beans show a reduction of up to 90% compared to non-certified soya beans from overseas, and 50% compared to conventional European soya beans. This environmental benefit can be also shown along the supply chain (cf. figure 2 and Annex 1) [3].

Studies by the *Research Institute for Organic Agriculture (FiBL)* Austria, have shown a significant reduction of CO₂-emissions by using Donau Soja / Europe Soya certified soya beans in processed soya feed and animal-based products.

For example, a study on Europe Soya certified soya meal produced by *AdamPolSoya (ATK Group)* showed a reduction of up to 82% compared to Brazilian soya meal and a reduction of 56% compared to soya meal from European soya bean mix respectively [4].

Another study on the carbon footprint of pork from the premium brand *EDEKA Hofglück* showed that the use of Donau Soja / Europe Soya certified soya meal in pig feed leads to a reduction of up to 40% of CO₂-emissions in the end products compared to regular feed [5].

Calculate your Emissions

Companies interested in conducting Life Cycle Assessments (LCAs) and Carbon Footprint calculations of scope 3 emissions along the value chain in accordance with SBTi FLAG can use the Donau Soja / Europe Soya datasets for certified soya beans, available as a so-called "branded dataset" via Blonk Consultant's Agri-footprint database and GFLI database. Datasets are available in SBTi FLAG compliant format. The data includes values on the carbon footprint as well as data on other environmental categories such as land use change, ecotoxicity, freshwater use and many more.

Find out more about our branded dataset [here](#).



Figure 2: Reduction of CO₂-emissions within the value chain with Donau Soja / Europe Soya certified soya beans (1, ©Donau Soja), soya meal (2, ©Shutterstock) and pork (3, ©Helmut Fischer)

Sustainability Reporting Obligations: from SBTi to CSRD

Large companies such as retailers are subject to various voluntary and legal requirements to report their CO₂-emissions, incl. scope 3. The most widespread and recognised is the voluntary Science Based Targets initiative (SBTi). Coming legal requirements that oblige companies to report and reduce their CO₂-emissions incl. scope 3 are the CSRD and CSDDD.

The reporting frameworks emphasise the importance of scope 3 emissions in achieving sustainability goals and require companies to account for these emissions in their sustainability reporting and target setting. This reflects the fact that companies' environmental impact extends beyond their direct operations to their entire value chain.

Framework	Approach	Explanation
Science Based Targets initiative (SBTi)	Voluntary scheme for companies to reduce their GHG on a science-based path [6].	Since 2015, >7,000 companies have committed to the SBTi. Companies that submit a target for SBTi-validation complete a scope 3 inventory. If a company's scope 3 emissions are 40% or more of their total emissions, a scope 3 target is required [7].
Corporate Sustainability Reporting Directive (CSRD)	Companies are required to report on impacts and risks arising from their activities on people and the environment [8]. Start date originally planned 2025 for the reporting year 2024.*	Companies are required to disclose data on the impact of their activities on the environment, incl. carbon emissions, as well as social and governance topics (so-called ESG reporting) [8]. In the field of carbon emissions, activities must be aligned with the 1.5-degree goal. The CSRD is on one level with financial reporting obligations and must be audited annually. SMEs can be affected by contractors and subcontractors [9].
Corporate Sustainability Due Diligence Directive (CSDDD)	It is planned that companies will be required to identify and prevent negative impacts on human rights and the environment in their own operations, subsidiaries and value chains from 2027 on [10].**	The CSDDD requires companies to conduct due diligence not just on their own operations, but also on the activities along their value chains, incl. obligations to ensure that their business models and strategies are compatible with the Paris Agreement (1.5-degree goal). SMEs can be affected as part of the value chains of larger companies [10].

* Final vote on timeline pending.

** Final vote still pending.

Conclusion

Scope 3 emissions might be hidden, but they have a big impact on our environment, especially when it comes to animal-based products and the use of soya in animal feed. **Certified soya in animal feed is one of the biggest levers for significantly reducing the overall CO₂-footprint of animal-based products.** Retailers and their suppliers

play a vital role in reducing these emissions and by making eco-friendly choices, they can make a positive difference for our planet. By choosing Donau Soja / Europe Soya soya beans, companies can start to mitigate their CO₂-emissions within their value chain efficiently and significantly.

About Donau Soja

Donau Soja is a non-profit, independent, and member-based organisation based in Vienna. The vision of Donau Soja is a sustainable, safe, and European protein supply. To achieve this, Donau Soja supports, among other things, the sustainable production of soya in Europe and the development of regional value chains. The two labels Donau Soja / Europe Soya stand for non-GM soya products of controlled origin and quality from the Danube region and from Europe. Donau Soja unites over 330 members in 29 countries.



Website: www.donausoja.org

Info Box on Emissions

According to the GHG Protocol the total emissions of a company are categorised into different scopes:

Scope 1 are the direct emissions from activities, such as use of wood/gas/fuels for energy production in company facilities or in company vehicles.

Scope 2 covers indirect emissions, for example from the production of purchased electricity.

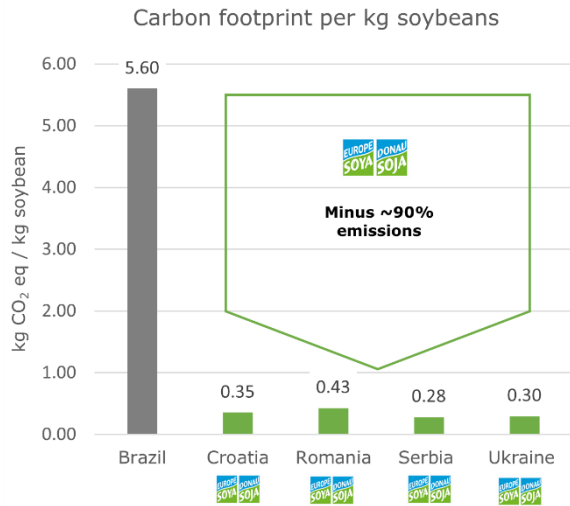
Scope 3 emissions are all other hidden indirect upstream and downstream emissions in a company's value chain. Scope 3 emissions account for the largest part of a company's total emissions, e.g. for retailer up to 90% of the total emissions [2].

Sources

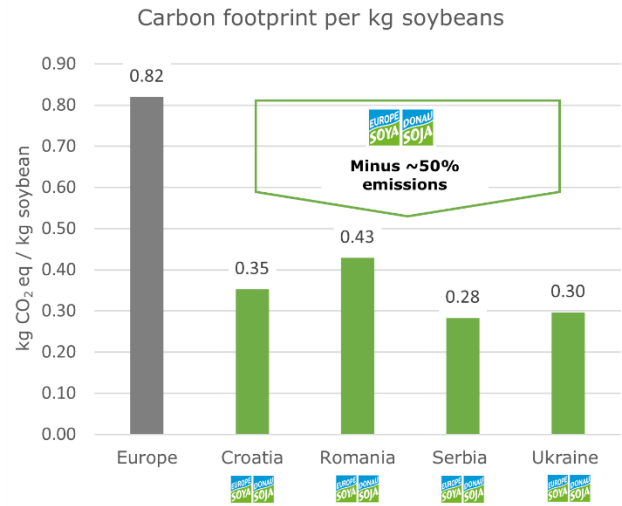
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Annex 1

1. CO₂ emissions of Soya Beans (2023)

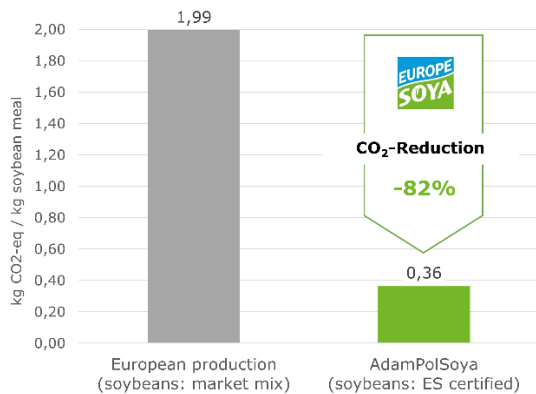


Comparison of global warming potential of 1 kg of soya beans from Brazilian non-certified production incl. LUC (Agri-footprint 5.0) with 1 kg Donau Soja / Europe Soya certified soybeans in 4 European countries (Blonk Consultants, 2022).

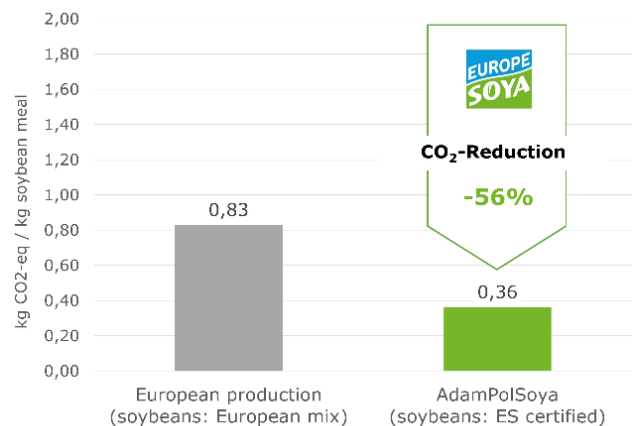


Comparison of global warming potential of 1 kg of soya beans from European non-certified production incl. LUC (Agri-footprint 5.0) with 1 kg Donau Soja / Europe Soya certified soybeans in 4 European countries (Blonk Consultants, 2022).

2. CO₂ emissions of Soybean meal (2022)

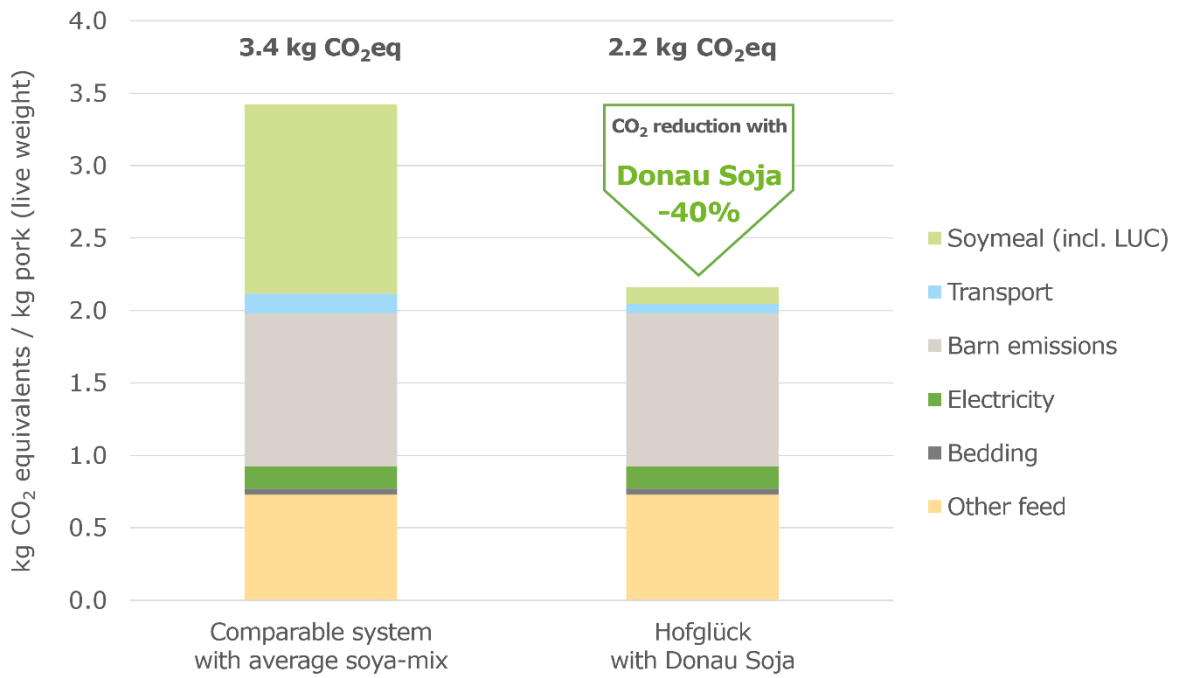


Global warming potential of 1 kg average soybean meal processed in Europe from average soybean import mix (source: GFLI, 2022) vs. 1 kg of soybean meal by AdamPolSoya from Europe Soya certified soybeans from Ukraine (source: FiBL, 2023)



Global warming potential of 1 kg of soybean meal processed in Europe from average European soybean production mix (source: FiBL, 2023) vs. 1 kg of soybean meal by AdamPolSoya from Europe Soya certified soybeans from Ukraine (source: FiBL, 2023)

3. CO₂ emissions of pork meat on the example EDEKA Hofglück (2020)



Global warming potential of 1 kg pork - comparison of feed with Donau Soja / Europe Soya versus soya from overseas (50:50 from USA and Brazil). Pork refers to 1 kg of pig (live weight) at farm gate, which is why further processing steps after the pig farm are not considered.