The Importance of LCA Databases for Scope 3 Calculations

Blonk Sustainability

About Blonk

Introduction

- International leader in **food system sustainability**

- Pioneers in **Environmental Footprint Management** in the agri-food sector

- Comprehensive solutions: **consultancy, software** and **data**

- Rooted in a **Life Cycle Thinking approach**

- Supporting the **entire Food System Value Chain**

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Agri-footprint

The database in a nutshell

World's leading source of environmental footprint data for the the agri-food sector.

Contains +4800 LCI datasets from +63 countries. These include the production of agricultural commodities, their processing and market mixes.

Users of Agri-footprint:

- Feed market industry
- Food producers (ingredients)
- Biomaterial and energy industries
- LCA expert community
- Scientific community
- Governments, NGOs, etc.

Data in the database:
- **Secondary data:** estimate the impact of a product based on its life cycle inventory, which often uses statistical data.
- **Branded data:** estimate the impact of an actual product based on primary data on the facilities where it is produced.
- **Sector data:** in between. Aims at representing the whole sector.

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Agri-footprint FLAG

The database in a nutshell

Version of Agri-footprint that is aligned with SBTi FLAG Guidelines. It aims to facilitate GHG inventory analysis, FLAG target setting and monitoring.

SBTi aligned means:
- Use of latest CF from AR6
- Land Use Change calculated through linear discounting during 20 years
- Reporting of land management, land use change and non-FLAG contributors to climate change separated.
- Grouped impact of non-CO2 GHGs.

Used mostly for Scope 3 Calculations of purchased goods and services.

- Supports hotspot evaluation and impact reduction strategies.

- The more relevant the hotspots, the more representative Emission Factors are needed.
  - Secondary data: Intended for screening and minor contributors.
  - Branded data: if available, can be more representative of each company's operations. It's growing!
  - **Re-baselining may be required when switching from one type to the other.**

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Disclosed branded data

Characteristics

- Based on primary data from the disclosing company's own operations.

- Added data from the supply chain may be needed (product type/hotspot dependent).

- Data and impacts are reviewed prior to disclosure.

- Disclosure as add-on to the database:
    - Free to access, EULA applies.
    - **Emission factors and CSV files made available**
        - Inventories / activity data often remain confidential.
        - Climate change impact (FLAG aligned).
        - Possible:
            - other impact categories (EF 3.1, ReCiPe).
            - multiple allocation types.

Available branded datasets in Agri-footprint

- Donau Soja (incl. FLAG)
- ProAgros
- Sodrugestvo

We increasingly receive requests
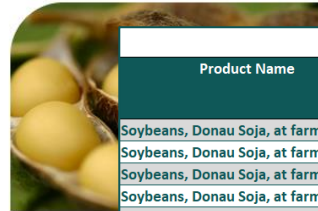
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Disclosure of branded data by Donau Soja

- Primary data collected for **essential datapoints** (~90% of impacts)
- Per country, data gathered in **multiple farms** for: yield, fertilizers input, fuel use, water use, crop protection products application, crop rotation scheme, limestone application, land use change history

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Donau Soja discloses environmental data of soybeans

Agri-footprint Branded Datasets now available

Donau Soja is a non-profit, independent, and member-based organisation based in Vienna, founded in 2012. The goal of Donau Soja is to promote the development of a sustainable, safe, and European protein supply. The organization supports soybean cultivation in Europe and therefore set up the Donau Soja / Europe Soya standards and labels. These standards support a sustainable, regional, GMO-free soy production of controlled origin and quality from the Danube region, and from other parts of Europe. The organization unites around 300 members in 27 countries, varying from food retailers, agricultural traders, animal feed industry, to environmental organizations. Besides that, the initiative is also supported by 19 European governments.

Product Name	Unit	Official category — Climate change (kg CO2 eq/unit)	Added category — Climate change - Biogenic CO2 (kg CO2 eq/unit)	Added category — FLAG - Climate change - Land use change (incl peat ox) (kg CO2	Added category — FLAG - Climate change - Land management - CO2 only (kg CO2	Added category — FLAG - Climate change - Land management - non CO2 GHGs (kg CO2	Added category — Non-FLAG - Climate change - excl LUC / peat ox / land management	Official category — Ecotoxicity, freshwater - part 1 (CTUe/unit)	Official category — Particulate matter (disease inc./unit)	Official category — Eutrophication, marine (kg N eq/unit)
Soybeans, Donau Soja, at farm/HR	kg	0.332419659	0	0.018470303	0.006381185	0.1266959	0.18087227	2.620564017	3.77403E-08	0.007683513
Soybeans, Donau Soja, at farm/RO	kg	0.401994016	0	0.006327818	0.006191482	0.206907286	0.18256743	3.813951411	3.63379E-08	0.012246973
Soybeans, Donau Soja, at farm/RS	kg	0.269319515	0	0.000368702	0.003226167	0.089282524	0.176442122	1.102483027	3.85361E-08	0.005504466
Soybeans, Donau Soja, at farm/UA	kg	0.281297547	0	0.023154615	0	0.092351374	0.165791557	35.10756394	2.23958E-08	0.005659371
Soybeans, Donau Soja, dried, at storage/HR Economic FLAG	kg	0.355508173	0	0.018472023	0.006381185	0.1266959	0.203959064	2.626044952	3.78883E-08	0.007689828
Soybeans, Donau Soja, dried, at storage/RO Economic FLAG	kg	0.406506494	0	0.006328782	0.006191482	0.206907286	0.187078944	3.816998077	3.64296E-08	0.012248855
Soybeans, Donau Soja, dried, at storage/RS Economic FLAG	kg	0.292408029	0	0.000370422	0.003226167	0.089282524	0.199528916	1.107963961	3.86842E-08	0.005510781
Soybeans, Donau Soja, dried, at storage/UA Economic FLAG	kg	0.30427226	0	0.023156717	0	0.092351374	0.188764169	35.25379176	2.2606E-08	0.005665394
Soybeans, Donau Soja, start material, at seed production/HR Economic	kg	0.583320375	0	0.032411152	0.011197519	0.222322291	0.317389413	4.598489721	6.62256E-08	0.013482806
Soybeans, Donau Soja, start material, at seed production/RO Economic	kg	0.705413836	0	0.011103972	0.010864731	0.363078196	0.320366936	6.692671994	6.37653E-08	0.021490829
Soybeans, Donau Soja, start material, at seed production/RS Economic	kg	0.472464887	0	0.00064681	0.005659637	0.156627558	0.309530882	1.934076403	6.76036E-08	0.009656436
Soybeans, Donau Soja, start material, at seed production/UA Economic	kg	0.493565955	0	0.040627194	0	0.162040141	0.290898621	61.59989143	3.92959E-08	0.009929959

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https://portal.blonksustainability.nl/tool/22/