

Linking LCA information to the UN SDGs – a use case



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Background and context

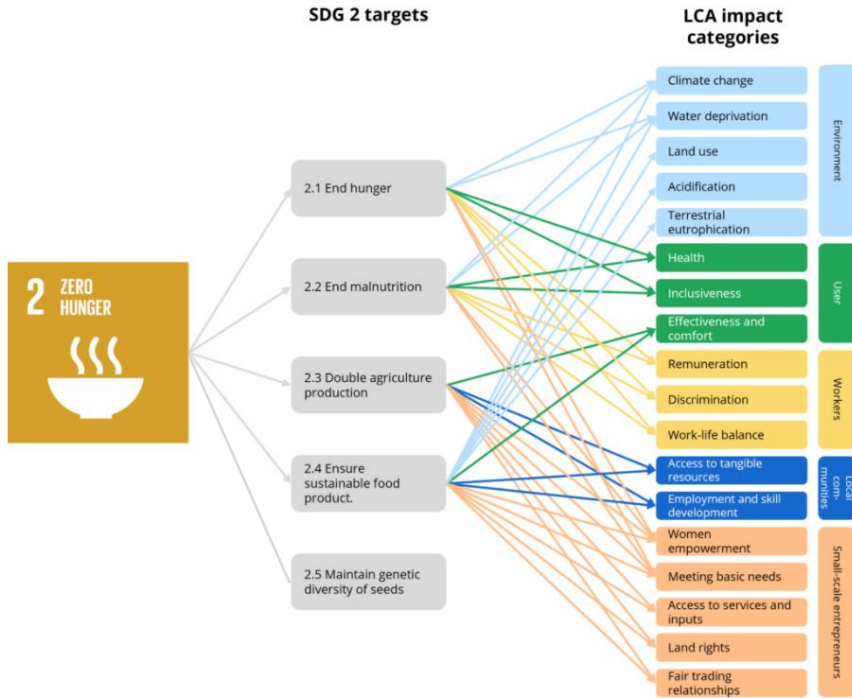


INTERPRETATION
How to relate to the goals, on which level and what business impacts are important?



CREDIBILITY
How could these links be made credible and reduce SDG Washing?

An example



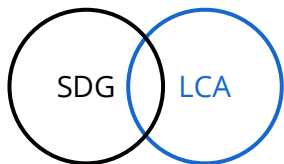
Classification

LCA impact category	Rationale	Requirements to be counted as a contribution to SDG 2	
Climate change	SDG target 2.1 and 2.4	+2	The environmental impact is a lot lower than the reference product (>10%)
	Important threat to productivity and irregular food supply, due to extreme weather event and drought	-2	The environmental impact is a lot higher than the reference product (> 10%)
Water deprivation	SDG target 2.1, 2.2 and 2.4	+2	The environmental impact is a lot lower than the reference product (>10%)
	Water deprivation is likely to be a negative contributor to food production and malnutrition. This is particularly the case in regions with water scarcity.	-2	The environmental impact is a lot higher than the reference product (> 10%)

Stakeholder	Social topics	Rationale	Requirements to be counted as a contribution to SDG 2	
Remuneration		SDG target 2.1 and 2.2 refer to having sufficient and nutritious food. This is strongly related to having purchasing power, which is then linked to having at least a living wage.	+2	All workers are paid a living wage and receive additional social benefits.
			-2	Not all workers are paid the legal or industry minimum wage.
Health		SDG targets 2.1 and 2.2 While health is defined under SDG 3, some products containing micronutrients and vitamins that counteract stunting and nutrient needs of adolescent girls, pregnant and lactating woman and old persons	+2	There is solid science-based evidence that normal use of the product enables and contributes to an improved health condition for users in comparison to alternative solutions, AND the company or facility has a continuous user-facing program in place to raise awareness and educate users on health-related issues associated with the product.

Characterisation

The links between LCA and the SDGs



SDG's that are well-covered by LCA

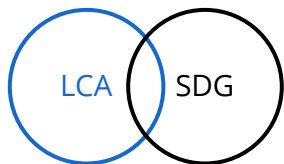
15 (life on land), 2 (zero hunger), 3 (health), 6 (water), 8 (decent work)

These SDGs link to many LCA impact categories

SDG's that are less covered by LCA

5 (gender equality), 10 (inequality), 13 (climate action), 16 (peace, justice), 17 (partnerships)

These SDGs require different indicators than LCA



LCA topics that are highly relevant for the SDG's

Climate change, water deprivation, remuneration and meeting basic needs, contribution to economic and skills development

These LCA categories are key in contributing to the SDGs

LCA topics that are less relevant for the SDG's

Human toxicity, ionizing radiation, resource use, privacy (not linked at all), health and safety

These LCA categories are less important when assessing the SDGs

Overview of case studies



Product	T-shirt production	Ammonia from plastic waste	Meat preservative	Passenger car component
LC Scope	Full lifecycle	Waste processing and ammonia production	Supply chain, manufacturing, use phase	Direct activities
SDG scope	Environmentally linked SDGs	All SDGs	SDG 2, 3 & 12	SDG 3, 5 & 6
Collected data	Environmental LCA results	Existing LCA results and new PSIA results	Identification of benchmark for LCA and PSIA results	PSIA results

Learnings from case study applications



- Positive contribution to the SDGs compared to the benchmark due to 100% reuse of material in fabric production and phasing out of coal from the energy inputs in processing steps



- Recycled material production lines don't always have lower negative contributions to the SDGs



- Assumption that there is a straightforward way to do the assessment but, the SDGs should be better understood. Deeper knowledge of the actual definition of the SDGs enriched the process



- The choice of the reference product makes a big difference in the result



ArcelorMittal

- Not all links are always relevant – context should be considered

Benefits of the methodology



Using pre-existing data to inform strategy development

Easy to apply with existing results and more able to support claims related to the sustainability strategy of the company

Focus on relevant SDGs and determine a way to report, monitor and improvement products

Focus on a set or subset of SDGs that are relevant to the company or find out which are most relevant given the LCA results available

Standardised and structured approach with more credible links

The rationale for classifying and characterizing the links is given and substantiated via the best current information available.

Ease of communication

Reporting and internal communication is easy to non-LCA experts. SDGs can tie in with existing company goals and targets

A more integrated way to show environmental and social impact information together

Next steps in methodology development

- The methodology is **ready for use** and application to case studies
- We are creating **free tools** to make the assessment more automated
- We are working on a **journal publication** with the complimentary SDG assessment impact pathway approach methodology
- We are aiming to **improve the robustness of the linking process**

LCA-based assessment of the Sustainable Development Goals

Final report for the life cycle screening approach developed in the project "Linking the UN Sustainable Development Goals to life cycle impact pathway frameworks"



Thank you for listening, do you have any questions?



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