

# Environmental product declaration

This EPD has been prepared in accordance with ISO 14025:2006

## Shelled peanut

**Programme**

The International EPD®  
System  
[www.environdec.com](http://www.environdec.com)

**Programme operator**

EPD International AB

**EPD registration number**

EPD-IES-0024769:001

**Publication date**

2025.07.22

**Valid until**

2030.07.20

**CPC Code**

21421 - Groundnuts, shelled

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at [www.environdec.com](http://www.environdec.com)

## Programme information

**Programme: The International EPD®  
System EPD® International AB**  
Box 210 60  
SE-100 31 Stockholm  
Sweden  
www.environdec.com  
info@environdec.com



The EPD owner has the sole ownership, liability and responsibility for the EPD. EPDs within the same product category but registered in different EPD programmes may not be comparable. For two EPDs to be comparable, they must be based on the same PCRS (including the same version number) or be based on fully-aligned PCRS or versions of PCRS; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data Quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterization factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see ISO 14025.

### PRODUCT CATEGORY RULES

PCR 2011:03 - "Prepared and preserved vegetable and fruit products, including juice" - Version 2.0 - UN CPC 21421 "Groundnuts, shelled".  
PCR review was conducted by: RYU Koide, Norwegian University of Science and technology (NTNU). The review panel can be contacted via info@environdec.

### LIFE CYCLE ASSESSMENT (LCA)

Leticia Tuninetti, Rodolfo Bongiovanni and María Raquel Cavagnaro -  
Members of INTI - INTA

### THIRD PARTY VERIFICATION

Independent third-party verification of the declaration and data, according to Norma ISO 14025:2006, via:

- EPD verification by individual verifier  
Third-party verifier: Bárbara Civit - CONICET  
Approved by: The International EPD® System.

Procedure for follow-up of data during EPD validity involves third-party verifier:  YES  NO

## About us

We are an agro-industrial company based in General Deheza, Córdoba, Argentina, specialized in the production and export of high-quality peanuts. We manage the entire value chain: from planting and cultivation to processing and international marketing.

With a strong commitment to sustainability, innovation, and excellence, we implement cutting-edge technology and strict controls at every stage of the production process to ensure quality and food safety.

We were the first peanut company in Argentina to certify BRCGS Food Safety, and we also hold Kosher and SMETA Sedex certifications, demonstrating our compliance with the highest international standards and customer requirements.



## ----- Vision

To be an innovative, profesional and efficient industry. We focus on the satisfaction and recognition of our stakeholders, committing ourselves to sustainable progress.

## ----- Values



### Our guides

Responsability, honesty and humility are the guiding principles of our culture.



### Team

We value truth, loyalty and commitment to our clients and collaborators. We promote a proactive attitude and strong sense of belonging within our team.



### Challenges

We seek enthusiasm and a results-oriented mindset as drivers of sucess, always open to challenges and continuous growth.



## Gastaldi around the world



From the **province of Córdoba**, we export our peanuts to over **80 countries** across the **Americas, Europe and Asia**.



We **export 99%** of our production.



**Export logistics involve multimodal transportation:** land transport (by train or truck) is used to move the cargo to the port, followed by sea transport for international shipping.



# Product information

## Shelled peanut

- 🥜 Are selected peanuts with skin (whole or splits)
- 🥜 This product will undergo further industrial processes before direct human consump.
- 🥜 Count: 30-38, 38-42, 40-50, 50-60, 60-70, 70-80, 80-100, Splits.
- 🥜 Shelf life: 12 months from the production date under proper storage conditions: 45%-55%humidity and a temperature between 12°C-15 °C



## Nutritional information

1. NUTRITIONAL COMPOSITION		
Atributes	Units	Values per 100 g.
Calories	Kcal	570
Proteins	g	26
Total carbohydrates	g	16.6
Fiber	g	7.9
Fats	g	48
Saturated fats	g	5.95
Monounsaturated fats	g	38.54
Polyunsaturated fats	g	3.51
Trans fats	g	0.00
Vitamin E	mg	8.10
Vitamin B9 - Folate	mg	240
Vitamin B3 - Niancin	mg	12.7
Vitamin B1 - Thiamine	mg	0.64
Vitamin B2 - Riboflavin	mg	9.13
Vitamin B5 - Pantothenic Acid	mg	1.77
Vitamin B6 - Pyridoxine	mg	0.35
Zinc	mg	3.30
Copper	mg	0.9
Selenium	mcg	6.90
Magnesium	mg	175
Phosphorus	mg	395
Potassium	mg	682
Calcium	mg	65
Sodium	mg	10
Iron	mg	2.90
Cholesterol	g	0.00

Values taken from a study carried out by the Fundacion Mani Argentino. For mor information <http://fundacionmani.or.org>

# LCA INFORMATION

## Declared unit

🥜 One kilogram of shelled and packed peanuts. The weight of the packaging is not included in the weight.

## Geographical scope

🌍 Global

## Time representativeness

🥜 The reference period for the analysis is the 2022-2023 crop season and the year 2023 for industrial data.

## Databases(s) and LCA software

🥜 Ecoinvent V 3.10.1 // SIMAPRO 9.6.0.1 // Agri-Footprint V6.0

## Impact assessment methodology

🥜 Environmental performance was evaluated through the Life Cycle Assessment (LCA). The product analysed is marketed under the Business-to-business (B2B) bussiness model, and the scope of the analysis is from “cradle to grave”.

The results are calculated with reference to Version 3.0 of the default list of environmental performance indicators based on EF 3.1

The study considers the following impacts:

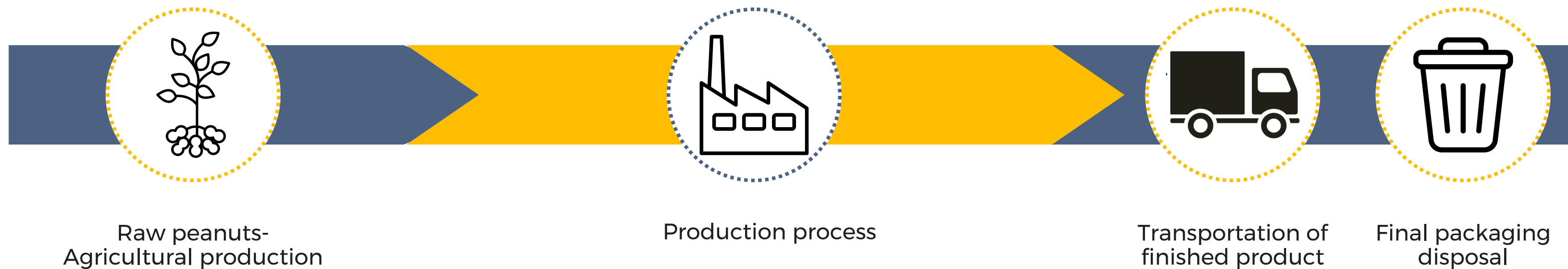
- Global warming potential
- Ozone layer depletion
- Acidification potential
- Eutrophication potential
- Photochemical oxidant creation potential
- Abiotic depletion potential (metals and minerals)
- Abiotic depletion potential (fossil fuels)
- Water deprivation potential



# System boundaries: From “cradle to grave”

## Declared unit

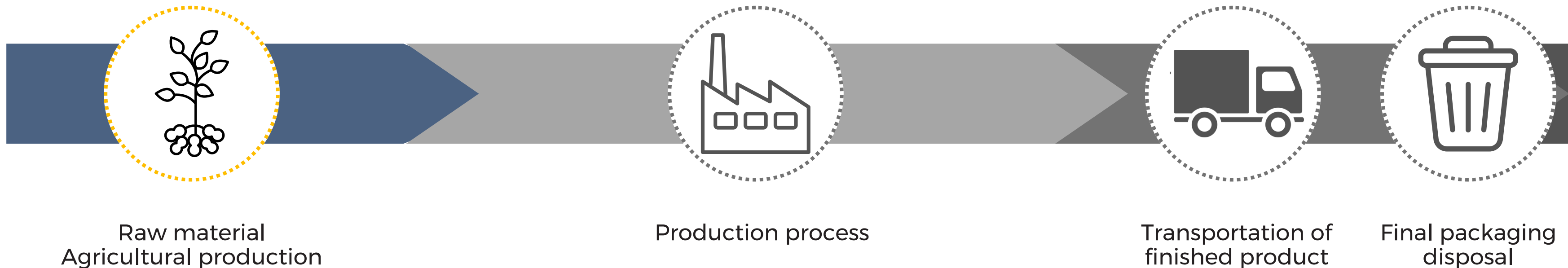
 One kilogram of shelled and packed peanuts. The weight of packaging not included in the weight.



The mass or biophysical allocation criterion was used, as indicated for industrial processes in the reference PCR.



# Upstream process: agricultural process

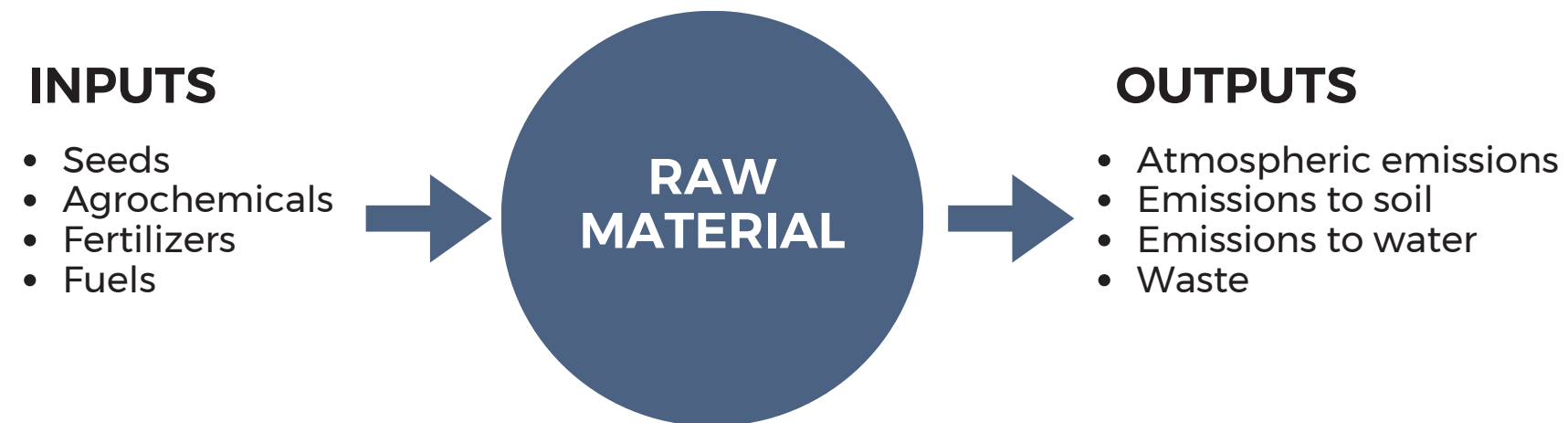


## Agricultural production - Raw peanuts

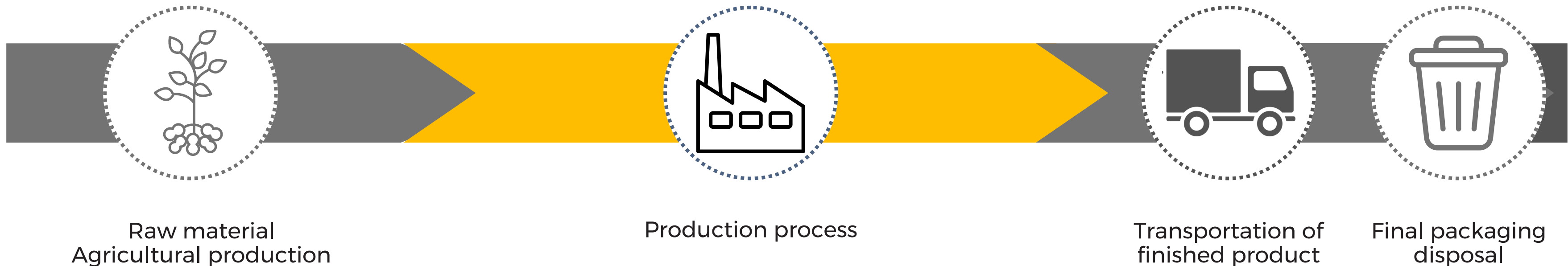
The agricultural data corresponds to the 2022/2023 crop year and the industry data corresponds to 2023.

For raw peanut production, emissions from the decomposition of aboveground and belowground crop residues were included in the study. Tier 2 (TIER 2) of the IPCC emissions calculation was used, which uses the IPCC default equations and calculates crop-specific emissions with country-specific emission factors taken fromo Argentina´s Biennial Update Reports (MAyDS, 2019). Tier 2 uses disaggregated activity data.

The stages of planting, crop protection, digging, and harvesting are considered.



# Production process: Industrial process in Plant



## Principal production

In this stage of precessing raw peanuts into shelled peanuts, Gastaldi Hnos's own data was used. The inputs used, fuel and energy consumption, the suppliers involved, as well as the losses and byproducts generated during the process were identified. The stages involved are: transportation of raw material from de field to the Plant, reception of raw material at the Plant, pre-cleaning, drying, storage of raw material, cleaning and shelling, electronic selection, packaging and storage of finish product.

### INPUTS

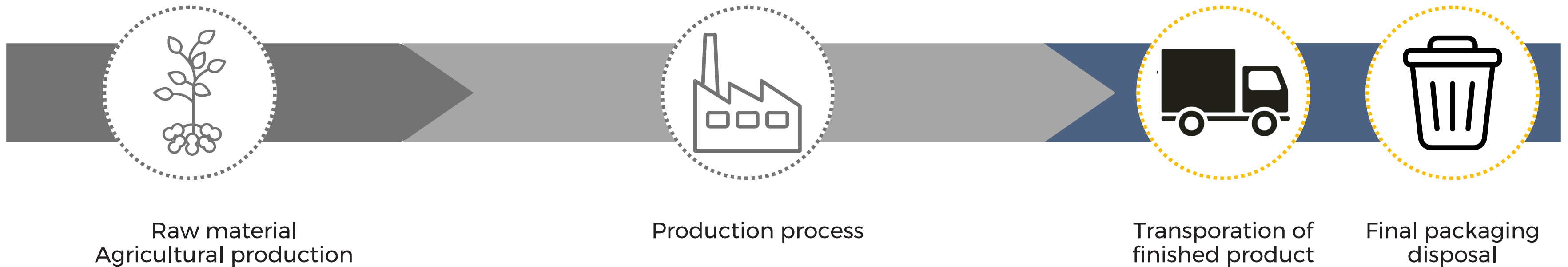
- Inputs
- Electricity
- Natural gas
- Fuels
- Packaging



### OUTPUTS

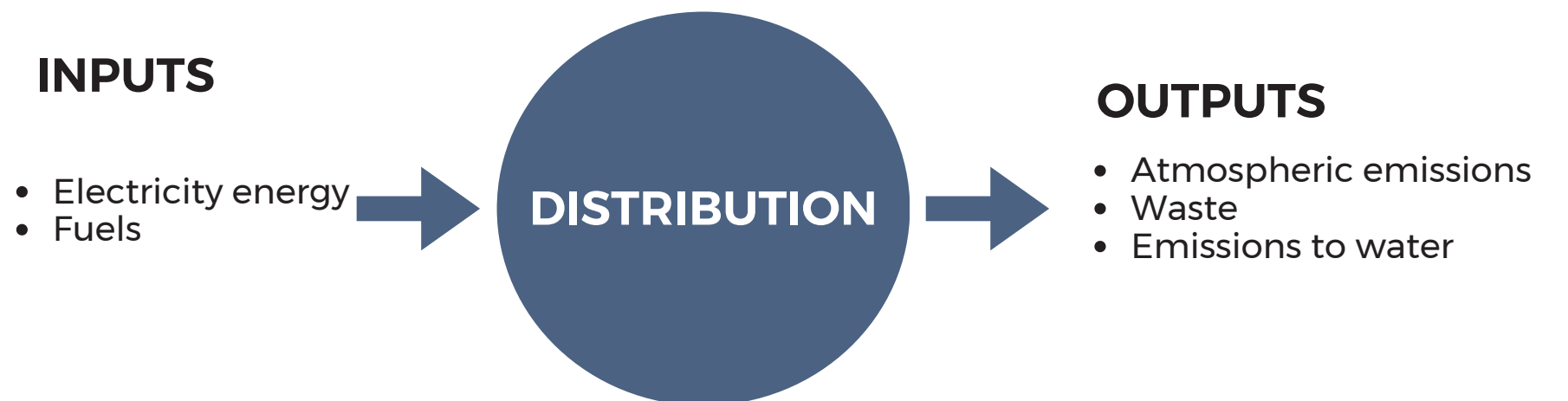
- Atmospheric emissions
- Waste

## Downstream: transportation of finished product and final packaging



Regarding logistics, product packaging was considered, including additional packaging to accommodate containers. For each declared unit, a weighted average of the various routes by train and truck was calculated, and shipping was also included, also considering a weighted average according to the most important destinations: European Union.

It is assumed that all necessary packaging, including wrapping, plastic and cardboard will be disposed of in a landfill at the end of its useful life. However, these materials are recyclable.



# Environmental results

Table 1: Impact category indicators for the UD 1 kilogram of shelled peanuts packaged and delivered to the customer.

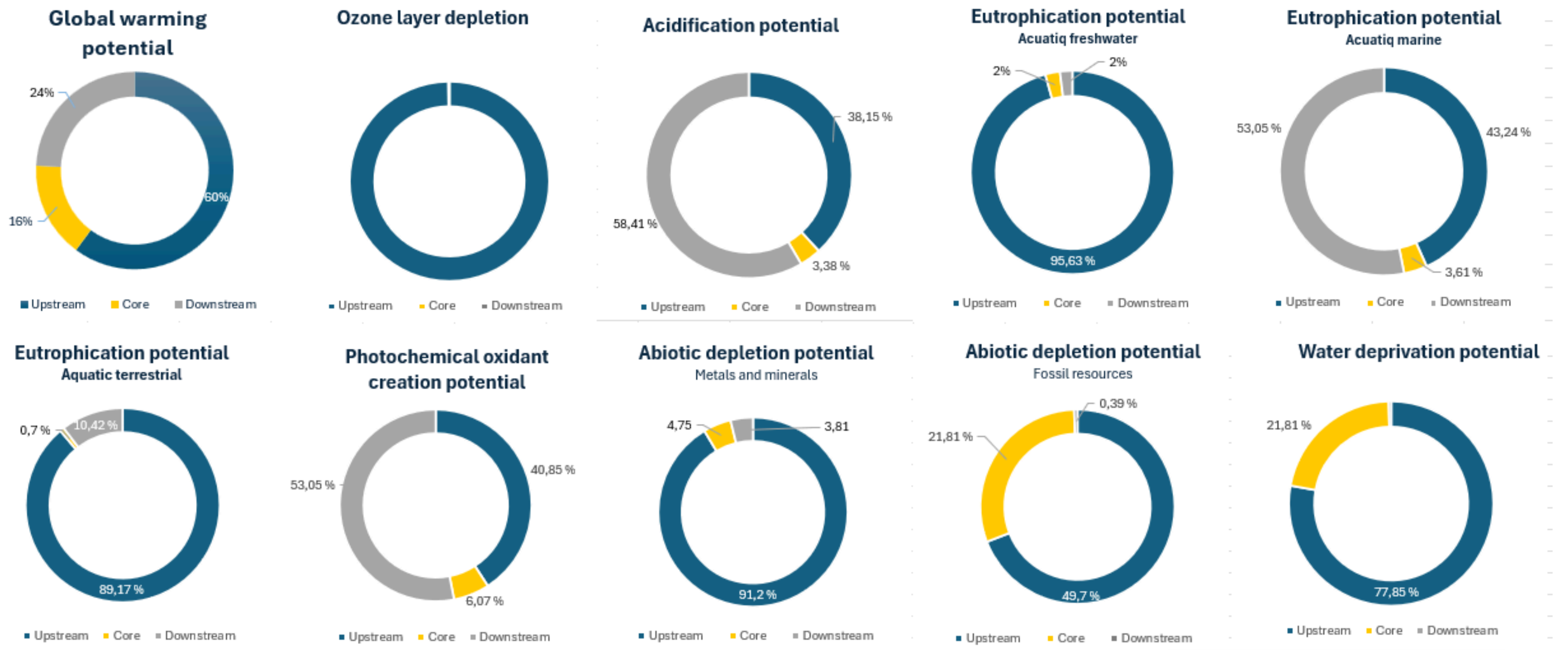
PARAMETER		Unit	Upstream	Core	Downstream	Total
Global warming potential (GWP)	Fossil	kg CO2 eq.	2.89E-1	1.18E-1	1.83E-1	5.91E-1
	Biogenic	kg CO2 eq.	1.67E-1	5.60E-4	6.32E-6	1.68E-1
	Land use and land transformation	kg CO2 eq.	2.85E-4	9.78E-4	5.30E-6	1.27E-3
	<b>TOTAL</b>	kg CO2 eq.	4.57E-1	1.19E-1	1.83E-1	7.60E-1
Ozone layer depletion (OPD)		kg CFC 11 eq.	2.62E-6	1.78E-9	2.66E-9	2.62E-6
Acidification potential (AP)		mol H+ eq.	2.88E-3	2.55E-4	4.41E-3	7.55E-3
Eutrophication potential (EP)	Aquatic freshwater	kg P eq.	8.53E-5	2.08E-6	1.76E-6	8.92E-5
	Aquatic marine	kg N eq.	9.21E-4	7.69E-5	1.13E-3	2.13E-3
	Aquatic terrestrial	mol N eq.	1.07E-1	8.35E-4	1.25E-2	1.20E-1
Photochemical oxidant creation potential (POCP)		kg NMVOC eq.	2.61E-3	3.88E-4	3.39E-3	6.39E-3
Abiotic depletion potential (ADP)*	Metals and minerals	kg Sb eq.	9.85E-8	5.13E-9	4.11E-9	1.08E-7
	Fossil resources	MJ, net calorific value	4.08E+0	1.84E+0	2.30E+0	8.21E+0
Water deprivation potential (WDP)*		m3 world eq. deprived	2.32E-1	6.50E-2	1.17E-3	2.98E-1

# Environmental results

Table 1: Resource usage indicator for the UD 1 kilogram of shelled peanuts packaged and delivered to the customer.

PARAMETERS		Unit	Upstream	Core	Downstream	Total
Primary energy resources - Renewable	Use as energy carrier	MJ, net calorific value	8.38 E-2	1.74 E-1	3.88 E-3	2.61 E-1
	Used as raw materials	MJ, net calorific value	3.70 E-1	1.79 E-4	3.54 E-4	3.71 E-1
	TOTAL	MJ, net calorific value	4.54 E-1	1.75 E-1	4.23 E-3	6.34 E-1
Primary energy resources - Non renewable	Use as energy carrier	MJ, net calorific value	7.38 E-5	6.04 E-7	2.83 E-6	7.72 E-5
	Used as raw materials	MJ, net calorific value	4.08 E+0	1.84 E+0	2.30 E+0	8.21 E+0
	TOTAL	MJ, net calorific value	4.08 E+0	1.84 E+0	2.30 E+0	8.21 E+0

# Analysis of the results



# Our commitment to sustainable peanut production

## Good Agricultural Practices (GAP)

We use less heavy machinery compared to other countries, which helps us reduce emissions associated with fossil fuel consumption.

## Favorable climate conditions

Our peanut-growing regions benefit from a climate that supports optimal crop development, reducing the need for additional inputs such as fertilizers and intensive irrigation.

## Technology for efficient agriculture

We implement advanced technologies like precision agriculture, drone monitoring and variable-rate applications. These practices optimize resource use and minimize environmental impacts.

## Crop rotation to protect soil health

We rotate peanuts with crops like corn and soybeans to improve soil health and reduce the use of chemical fertilizers, which lowers greenhouse gas emissions.



## References

### ISO 14040:2006

Environmental management - Life cycle assessment - Principles and framework

### ISO 14044:2006

Environmental management - Life cycle assessment - Requirements and guidelines.

### ISO 14067:2006

Greenhouse gases. Carbon footprint of products. Requirements and guidelines for their quantification.

### ISO 14025:2006

Environmental labels and declarations. Type III environmental declaration. Principles and procedure.

## International EPD System

General Programme instructions (EPD) - Version 5.0.1

### PCR 20011:03

Prepared and preserved vegetable and fruit products, including juices. Version: 2.0 – UP CPC 21421: Groundnuts, shelled

## Life cycle assessment (LCA)

Life cycle assessment (LCA) applied to peanut. Report date: 10/03/2025





Environmental product declaration

