

SUSTAIN ABILITY

Report 2022



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Unless otherwise indicated, “Louis Dreyfus Company,” “LDC,” “Group” and related terms such as “our,” “we,” etc. used in this report refers to the Louis Dreyfus Company B.V. Group.

About This Report

Louis Dreyfus Company is pleased to present its 2022 Sustainability Report, which provides an overview of our sustainability journey during the year ended December 31, 2022, as well as insight into future targets and plans.

It is intended to be read in conjunction with the company's [2022 Annual Report and Financial Statements](#), as a compendium of our strategic progress and performance.

Reporting Framework

This 2022 report references Global Reporting Initiative standards that help businesses identify and report on environmental, human rights and corporate governance impacts. A mapping of our disclosures against these standards can be found on pages 100-102.

Evolving from annual sustainability reports published by the Group since 2012 as part of our commitment to transparent reporting and dialogue with our stakeholders,

our 2022 publication is organized to report on Group-wide efforts pertaining to environmental, social and governance (ESG) matters, while maintaining insight into action in specific product lines.

We welcome any feedback on our reporting, via our [website contact form](#).

Message From Our CEO



During 2022, the world's population reached eight billion people – a milestone in human demographics that has profound implications for our planet, as food production, consumption and related greenhouse gas emissions increase accordingly. As a leading global merchant and processor of agricultural goods, with an important role to help feed and clothe a growing population, we have a duty to fulfill this role while acting as a catalyst for a better future of food and agricultural production and distribution systems.

In a world where sustainability issues have accelerated, expectations and regulation for responsible business practices and supply chains are increasing, as consumers expect purchase decisions to support environmental conservation and socioeconomic development, protecting people and planet.

Environmental Stewardship

Achieving the world's climate goals to limit global warming critically depends on driving more sustainable food and agricultural production and consumption.

Recognizing the key role we have to play in this endeavor, in 2022 we went beyond the sectoral roadmap announced at COP27, with our Group-wide **commitment to eliminate deforestation and conversion of native vegetation** of high conservation value for agricultural purposes from all our supply chains by the end of 2025, adopting deforestation and native vegetation conversion reference dates for palm, soy and other commodities.

As an important basis to fulfill this commitment through responsible sourcing decisions, we have continued to drive traceability and engage with farmers in our supply chains to safeguard natural resources – such as soil, biodiversity and water – through more sustainable **land use**.

Social Responsibility

While we seek to conserve the natural resources on which we all depend, our efforts also focus on the many people working for and with us: employees and contractors working at our facilities and beyond, but also our suppliers and partners in thousands of communities connected with our business activities, whose production is the heart of food and agricultural systems.

As ever, a top priority is health and safety, and I am therefore delighted to report that 2022 was another record year in terms of safety performance indexes, with the lowest ever reported accident frequency and gravity rates at LDC. This strong result was thanks to the sustained efforts of our Safety, Health & Environment (SHE) teams, record investment into SHE enhancements and awareness campaigns, and of course, the diligence of every person at our sites in **working safely**, adopting healthy habits and acting for the environment.

Our leadership position enables us to influence our value chains toward positive and sustainable change, presenting both opportunities and challenges that we firmly believe can and should be addressed through increased collaboration among all value chain stakeholders. While we can and must act individually, securing broad and lasting impact requires a concerted effort to find fair and shared solutions to common challenges.

Advancing with our **decarbonization** journey, we also pushed ahead with groundwork for science-based, near-term target-setting for Scope 1 and 2 emissions reductions of 33.6% by 2030, compared to our 2022 baseline year. Announced in 2023, this target is aligned with **Science-Based Targets initiative** criteria and consistent with the **Paris Agreement** goal to limit global warming to 1.5°C above pre-industrial levels. We also launched a range of studies to better understand our Scope 3 emissions and will submit related data to CDP later this year.

I am also pleased to report that we exceeded our preexisting five-year targets (2018-2022) across all four of our environmental key performance indicators: greenhouse gas emissions, electricity and energy consumption, **water** usage and solid **waste** sent to landfill.

Our efforts to create a more **inclusive workplace** also continued to take shape, with the completed global roll-out of our inclusive recruitment standard, ongoing HR and employee training, and multiple workplace wellbeing initiatives.

We also continued to support local initiatives to **empower farming communities** around the world, working alongside various partners and expert organizations. An important focus remains to train smallholder farmers on more sustainable agricultural methods, driving the adoption of regenerative agriculture techniques to increase their yields and incomes sustainably, with positive impacts for their broader community.

In line with our commitment to upholding **human rights**, LDC also became a member of the **ILO Child Labour Platform**, a leading initiative aiming to eradicate child labor in supply chains. This membership builds on the strong principles and codes that guide our company in relation to fair labor practices and zero tolerance for child and forced labor.

Group Governance

Recognizing that strong governance is key to good corporate citizenship, we continue to reinforce the framework that supports sustainable business practices. This included our **financing strategy and model**, through several new sustainability-linked credit facilities in 2022, as well as our **data security** program.

Responsible Business

Throughout 2022 we also made many positive strides in specific supply chains, outlined in detail in the Responsible Business section of this report.

Key highlights, among many others, include the launch of LDC's five-year sustainability strategy and **Responsible Sourcing Program** for **coffee**, successful **freight** biofuel trials,

Future in Focus

As the world's population continues to grow, the need to drive more sustainable food and agricultural systems will also grow – in importance and urgency.

At LDC, we believe we have both a duty and a vital role to play in shaping a fair and sustainable future, through continued action to reduce our environmental footprint, empower and protect the people working for and with us, and set standards for responsible practices and behaviors – within the company and in our wider value chains.

We will continue our work in this sense in 2023 and beyond: aligning governance of Group finances, data management and procurement with sustainability goals; driving supply chain transparency as a foundation for responsible sourcing decisions; accelerating our decarbonization journey to contribute to global climate goals;

We also began work toward a Group-wide **responsible sourcing** policy and grievance protocol, building on the principles laid out in LDC's Group Code of Conduct and several existing commodity-specific policies and codes, which formalize our conviction that there is only one way to do business: **ethically**.

advances for supply chain traceability and deforestation-free verification protocols in **palm** and **soy**, training on sustainable farming practices delivered to tens of thousands of **cotton** farmers, and the Group's first sustainability-linked credit line including both environmental and social KPIs for our **juice** business.

engaging with farmers and value chain stakeholders to foster more sustainable production practices and eliminate deforestation for agricultural purposes; and of course, continuing to prioritize the safety and wellbeing of our teams worldwide, who are critical to our success.

We are now building on the **important groundwork** undertaken in 2022 to reassess and align our sustainability strategy and framework to critical environmental, social and governance issues, and look forward to communicating the outcomes of this process in due course.

I am confident that LDC will continue to make good progress on this front, and I would like to thank our people across the world for the efforts they have made in 2022 – and continue making daily – to realize our ambitions while creating fair and sustainable value, for the benefit of current and future generations.

Michael Gelchie

Chief Executive Officer



Message From Our CSO



2022 was a year of transition and transformation for LDC's sustainability journey, in which we continued to advance on existing sustainability commitments but also made a concerted effort to look beyond our own activities and consult with key internal and external stakeholders, as part of important groundwork to assess and realign our sustainability priorities and strategy with critical environmental, social and governance issues.

In September 2022, LDC kicked off an in-depth materiality assessment to identify and define the sustainability topics that matter most to our business and stakeholders. Extensive desktop research was conducted on market developments, industry trends and regulatory evolutions, and input on the most critical sustainability focus areas for LDC were collected through surveys and interviews of key stakeholders: the Group's Supervisory Board, top management and employees, as well as customers, suppliers, financial partners and NGOs.

The materiality assessment confirmed we have been advancing in the right direction in several areas, in particular with regard to climate change and land use change, which ranked top of the sustainability agenda.

Action to reduce greenhouse gas (GHG) emissions, energy and electricity consumption is a major element of our decarbonization journey, led by our [Carbon Solutions Platform](#) since 2021, and in March 2023 we formalized our target for Scope 1 and 2 emissions reductions of 33.6% by 2030. We also aim to disclose our Scope 3 emissions through our first [CDP](#) reporting in 2023, and formalize our Scope 3 reduction target in 2024.

Promoting responsible land use by avoiding loss or degradation of natural habitats is a critical enabler for climate change mitigation, as well as biodiversity and water conservation, and therefore also an issue prioritized by a vast majority of stakeholders interviewed for our materiality assessment. This resonates with our work to eliminate deforestation and native vegetation conversion for agricultural purposes in our supply chains by the end of 2025, supported by supply chain traceability efforts.

Our materiality assessment also highlighted areas for improvement in 2023 and beyond, with regard to human and labor rights, and responsible sourcing. The importance attributed to these topics by our stakeholders confirmed our existing plan to roll out a formal human rights policy, formalizing our commitment to uphold human and labor rights in our operations and supply chains. Similarly, we began work in 2022 toward a Group-wide responsible sourcing policy and grievance protocol, building on existing product-specific supplier codes and policies across LDC.

Importantly, our 2022 materiality assessment led to a sustainability materiality matrix that will serve as the foundation of our future sustainability strategy, to be formalized in 2023, and will also inform our sustainability reporting framework going forward, with reference to [Global Reporting Initiative](#) standards.

In 2022, we also worked to further enhance sustainability governance for additional oversight at various levels of the organization. While our Supervisory Board supervises overall sustainability strategy and direction, a new executive-level Sustainability Committee was established to guide the execution of our strategy and address associated risks and opportunities. This committee is in addition to our existing dedicated Human Rights and Environment Committees, inviting external expertise and guidance on best practices and strategy implementation.

Working from groundwork undertaken in 2022, we are ready for the next phase of our sustainability journey, in which we look forward to ever-closer collaboration with our customers, suppliers, partners and other stakeholders, as we continue to work together toward increasingly sustainable and inclusive food and agricultural systems.

Murilo Parada

Chief Sustainability Officer

LDC Materiality Matrix

Key:

E

S

G



Material Topic Identification

A. Desktop research and analysis of selected peers from LDC's industry and financing groups, regulations, megatrends, media, NGOs, and internal policies, procedures and publicly available reports.

B. LDC and *EY* developed a list of topics that were potentially relevant to LDC's sustainability strategy. 23 material topics were identified, organized around 5 themes: Natural Resources, Communities & Suppliers, People, Products and Business Conduct.

Assessment Methodology

Topics were assessed in line with a double materiality approach, as outlined by the *Global Reporting Initiative* (GRI) and the European Sustainability Reporting Standards (ESRS). This means each topic will be assessed from two perspectives:

1. The importance of the topic to LDC's business success (financial materiality)
2. The impacts that LDC's business activities have on the topic (impact materiality)

Stakeholders & Experts

In addition to desktop research, *EY* conducted interviews to gather the perceptions and expertise of key internal and external stakeholders on the predefined list of sustainability topics.

Interviews were conducted with:

- LDC management representatives;
- representatives from the financing community;
- associations and NGOs; and
- suppliers and customers.

In addition to interviews, LDC conducted an employee survey (over 1,900 respondents) dedicated to identifying the most material topics perceived by employees.

Message From Our Partner

We are at a crossroads in the fight against child labour. Global progress against child labour has stalled for the first time in two decades. Now more than ever, we need business commitment and leverage to end child labour.



Alarmingly, progress addressing this challenge has hit an unexpected standstill. Consider the figures: an estimated 160 million children between ages 5 and 17 were victims of child labour in 2020, according to [estimates by the International Labour Organization \(ILO\) and UNICEF](#).

This equates to almost 1 in 10 children worldwide and represents an increase of over 8 million since 2016.

These children, stripped of their childhood, education and potential, are largely found in agriculture, producing the food many of us enjoy in the comfort of our homes. A lack of decent work for parents, poverty, and inadequate social protection systems are also driving children to work across sectors. This bleak reality is not only undermining their rights and future opportunities, but also perpetuating cycles of poverty and child labour.

We can, and must, reverse this trend. The private sector has the responsibility and leverage to accelerate progress for millions of children in child labour. [Recent research from the Alliance 8.7](#) indicates that anywhere between 9% and 26% of child labour (varying by region) is linked to global supply chains.

Imagine the profound impact companies can make by collaboratively addressing the root causes of this problem – not only by helping the immediate victims but also by reorienting management systems and rethinking business models to uplift millions of vulnerable families, workers and communities and contribute to wider prosperity and social justice.

The [ILO](#), the tripartite UN agency for the world of work, is supporting and strengthening the private sector's efforts through its [Child Labour Platform \(CLP\)](#). The Platform brings together businesses across industries to share good practices and implement collective solutions to end child labour in supply chains.

Its concrete interventions extend from the coffee sector in Honduras, to cotton and spice production in India, to cocoa, palm oil and rubber cultivation in Côte d'Ivoire, to cobalt mining in the Democratic Republic of Congo.

Through these collaborative actions, the CLP is protecting vulnerable children and tackling the root causes of child labour by promoting decent work, social protection for impoverished communities, and improved incomes for adults and young people, working alongside governments, employers' and workers' organizations. At the core of this effort lies the urgent need for business and all other actors to respect and support the freedom for people to organize and participate in the decisions that affect their lives, and for girls and women to enjoy equal opportunities for quality education and decent jobs.

Last year, we were happy to welcome Louis Dreyfus Company (LDC) to our coalition. As a leading global merchant and processor of agricultural goods such as sugar, coffee and cotton, LDC is an important partner to promote and scale up change where child labour is often prevalent. LDC has joined other CLP members to contribute to an ILO-led project on ending child labour in the coffee supply chain of Honduras, Uganda and Vietnam. The project will advance respect for fundamental rights at work, and increase opportunities for decent jobs for women and young people in coffee communities.

The challenge we face is colossal, but so too is the opportunity for change. The stakes are not just numbers or statistics; they are the lives and futures of millions of children worldwide. We have the knowledge, the tools, and the solutions to end child labour in the next generation. It will take all of us to act collectively and reignite progress to do it.



Katherine Torres

Senior Programme and Operation Officer,
Supply Chains Fundamental Principles and
Rights at Work Branch, International Labour
Organization Global Coordinator,
ILO Child Labour Platform

ESG

In 2022, we continued to fulfill our duty to act as a catalyst for more sustainable food and agricultural production systems, acting to address Group-wide and business-specific environmental, social and governance issues.

Environment

As a leading global agribusiness, LDC recognizes that minimizing our environmental impact is imperative to our long-term success, safeguarding the natural resources we depend on in our work to help feed and clothe a growing global population. To this end, we seek to reduce the environmental impact of our business activities through actions to reduce emissions, water consumption and waste generation in our operations around the world, while encouraging partners and stakeholders across food and agricultural value chains to do the same.

In 2022, we reached our goal to reduce LDC's four environmental key performance indicators (greenhouse gas (GHG) emissions, energy consumption, water usage and solid waste sent to landfill) by 5% between 2018 and 2022, and pursued our efforts to reduce emissions from shipping activities.

In parallel, our Carbon Solutions team advanced with essential groundwork for setting science-based emissions reduction targets in 2023 and beyond.

In February 2022, we also announced a key step for conservation, with our commitment to **eliminate deforestation and conversion of native vegetation** of high conservation value for agricultural purposes from all our supply chains, by the end of 2025. Going beyond sectoral commitments and roadmaps, LDC adopted reference dates at November 2016 for palm and January 2020 for soy and other commodities.

In addition to reducing the environmental impact of our own operations, we continue to work to drive change at the heart of the food chain, by engaging with the farmers whose production methods are key to the conservation of natural resources and habitats.

In 2022, working with partners, we supported and trained hundreds of farming communities connected with our business across three continents, with a goal to empower them to increase their yields sustainably through regenerative agriculture practices.

Climate

As a responsible global company, with a vision for a safe and sustainable future, LDC is committed to supporting the transition to a low carbon economy, in line with **Paris Agreement** goals to limit global temperature increases to 1.5°C, compared to pre-industrial levels, as defined by the **Science Based Targets Initiative (SBTi)**. To this end, we are taking action to reduce greenhouse gas emissions from LDC's own operations, as well as those generated by activities in our value chains, and to reduce energy and electricity consumption.

Cross-Sector Action

In 2021, LDC signed the **Agricultural Commodities Companies Corporate Statement of Purpose**, committing to deliver a clear climate action plan alongside other agri-commodities companies. The resulting **Agriculture Sector Roadmap to 1.5°C**, announced at COP 27 in November 2022, outlines plans for accelerated action to

halt commodity-linked deforestation in soy, palm and other supply chains, in line with a 1.5°C scenario. It also commits signatories to publicly disclose emissions from land-use change and set science-based targets to reduce these, no later than July 2024.

Decarbonization in Focus

LDC created its **Carbon Solutions Platform** in 2021 to drive company-wide decarbonization strategy across all emissions Scopes.

In 2022, the team advanced the groundwork for setting the science-based, near-term reduction target for Scope 1 and 2 emissions by 2030, **announced in 2023**, while advancing initiatives across its two main areas of responsibility:

- to build a portfolio of high-quality carbon avoidance and removal credits and participate in compliance and voluntary carbon markets; and
- to develop and implement LDC's decarbonization roadmap in collaboration with all platforms and functions.

Carbon Avoidance & Removals Portfolio

In 2022, the Carbon Solutions Platform enlarged its portfolio of carbon avoidance and removal credits certified by the leading carbon standards

(**Verified Carbon Standard**, **Gold Standard** and **Climate Action Reserve**), with a strong focus on nature-based solutions and spanning various geographies, including Brazil, China, Indonesia, Kenya, Malawi, Paraguay and US.



Case Studies

Improved Cropland Management, China

As part of this project, LDC signed a long-term removals offtake agreement with *Shanghai Agro-Services* that involves the introduction of a suite of regenerative agricultural practices on 20,000 hectares of degraded cropland in Hebei Province. Practices include reduced tillage, optimized chemical fertilizer application and returning straw residue to wheat and corn fields. The project is estimated to sequester over 2.4 million tCO₂e over its 20-year lifecycle.



High-Efficiency Wood-Burning Cookstoves, Malawi

LDC purchased carbon credits from this project from *C-Quest Capital*, which involves the distribution of locally-manufactured efficient cookstoves to 1.1 million households in rural and peri-urban areas of Malawi. It is estimated that the project will generate 1.9 million tCO₂e of emissions reductions over its 10-year lifecycle.



Corazón Verde del Chaco, Paraguay

LDC co-financed this project with *Quadriz* through the purchase of carbon credits. The project protects over 31,800 hectares of natural forest habitat that is a true biodiversity hotspot, from planned legal deforestation for agricultural purposes. The project is estimated to generate more than 5.6 million tCO₂e of emissions reductions over its first 10 years.



Participating in Carbon Markets

During 2022, LDC became an active player in the global voluntary carbon market as well as established carbon compliance schemes in Europe and US. Our Carbon Solutions Platform opened accounts in carbon registries, became a member of several major carbon exchanges and set up trading relationships with over 10 brokerage firms and over 40 trading counterparties.

Case Study

Carbon Compliance Scheme, China

LDC's soy crushing plant in Tianjin is part of a pilot emissions trading scheme requiring to meet a 2% year-on-year greenhouse gas (GHG) emissions reduction target, starting from 2021 and based on 2019 levels. In 2022, LDC was able to generate a small surplus of emissions allowances that were successfully sold on the market in our first emission allowance transaction in China.



Asset Improvement Initiatives

During the course of 2022, LDC invested in multiple facilities in Asia, North America and Latin America to optimize fuel and power consumption. This was done through heat recovery and energy recycling technology, and leverage low-carbon technology to reduce emissions, for example through photovoltaic installations to generate clean energy.

Case Studies

Recapturing Heat & Reducing Energy Consumption, US

At our Grains & Oilseeds facility in Grand Junction, Iowa, US, we installed a dryer exhaust energy recovery (DEER) system in 2022, to recapture heat and reduce the site's consumption of natural gas. The moist heat previously emitted by the heat recovery steam generator stack is now recaptured and compressed back into steam energy, recycling the heat stream as a heat source in its distillation columns. The project has reduced daily natural gas consumption by approximately 1,100 British thermal units (BTU).



Award-Winning Carbon Management, China

Our Tianjin plant received the 2022 Carbon Asset Management Pioneer Award from *Tianjin Climate Exchange*, in recognition of its excellent GHG emissions reduction results. The award was granted after publication of the plant's GHG emissions figures, which revealed a reduction of 6,809 tCO₂e compared to 2021. This progress was the result of successful electricity and steam reduction engineering projects at the plant.



Eco-Responsible Recognition, Mexico

Our El Cofre coffee plant in Mexico completed the installation of a photovoltaic system that ensures 80% of the plant's energy supply comes from renewable sources. After voluntary entry into an audit process to assess the plant's legal compliance with ecological obligations, it was officially recognized as an asset belonging to an 'Environmentally Responsible Company' in 2022.



Energy & Electricity Consumption in 2022

The index we use to measure electricity consumption shows the ratio of electric power consumed to process (for industrial facilities) or handle (for warehousing facilities) feedstock. It is measured in kilowatt-hours per metric ton of feedstock (kWh/MT).

Although 56% of our sites saw improvements with regard to electricity consumption, the overall figure increased marginally (0.17%) year on year in 2022, due mainly to throughput issues at certain facilities. Nevertheless, we are pleased to report an overall reduction of 5.4% for 2022 in comparison with our 2018 baseline, in line with our reduction target of 5% for this period.

Energy Consumption Within the Organization

Energy Source	2022 Consumption (in GJ)
Non-Renewable	16,254,764
Renewable	10,444,343
Electricity from Grid	3,637,435
Steam Bought	1,988,486
Total	32,325,029

Repartition of Non-Renewable Energy Consumed

Energy Source	2022 Consumption (in GJ)
Natural gas	13,907,251 (86%)
Coal (sub-bituminous, anthracite, bituminous & others)	1,339,517 (8%)
Biodiesels, diesel & diesel oil	791,775 (5%)
Others	216,221 (1%)
Total	16,254,764 (100%)

Total Energy Consumption Intensity

	2022 Intensity (in GJ/ton)
Energy intensity	0.54



Case Study

Five-Year Wind Power Agreement, Argentina

In July 2022, LDC signed a five-year power purchase agreement with *Pampa Energia* for the provision of 39'500 megawatt hours (MWh) of renewable electricity, generated by wind farm, to our Timbúes agro-industrial complex in Santa Fe, Argentina. In addition to the electricity supply, LDC will receive the International Renewable Energy Certificates necessary to report reductions in Scope 2 emissions.



Green Power, Colombia & China

In Colombia, all electricity used to power our coffee milling plant in Pereira in 2022 is now certified as originating from renewable energy sources, which has reduced the plant's Scope 2 emissions to zero. In December 2022, LDC reached agreement with electricity supplier *CGN* for the provision of renewable electricity to cover LDC's full 2023 electricity needs for our crushing plant in Dongguan, China, which will purchase over 29'000 MWh of renewable electricity from CGN Shanwei Jiazii 500MW offshore wind farm, operational since December 2022.



Global Absolute GHG Emissions in 2022

2022 GHG Emissions (in tCO ₂ e)*	
Scope 1	992,704
Scope 2	443,921
Total Scope 1+2	1,436,625
Biogenic Emissions	1,080,932

*Scope 1, Scope 2 and biogenic emissions include GHG emissions produced by all processes, equipment and company-operated vehicles at all global sites under the operational control of Louis Dreyfus Company B.V. and its subsidiaries, relative to the 2022 calendar year. Reported values were assured by Deloitte & Associés - an independent external assurance provider - to a limited level of assurance. The Scope 1 figure includes GHG emissions from combustion of fuels. The Scope 2 figure includes GHG emissions from consumption of purchased electricity, steam, heat and cooling, calculated using the location-based approach in line with *GHG Protocol* Scope 2 Guidance. Biogenic emissions refer to GHG emissions resulting from the combustion or processing of biologically-based materials.

Reduction of GHG Emissions

	2021 (in tCO ₂ e)	2022 (in tCO ₂ e)	Reduction (2022 vs 2021)
Scope 1	999'659	992'704	-6'955 tCO ₂ e (-0.7%)
Scope 2	458'819	443'921	-14'898 tCO ₂ e (-3.2%)

Scope 1 and 2 emissions for 2021 are disclosed on our [website](#).

GHG Emissions Intensity Index

The GHG emissions intensity index shows the quantity of GHG emitted from combustion of fuels (Scope 1), consumption of purchased electricity, steam, heat and cooling (Scope 2), and combustion of natural sources (Biogenic), per ton of feedstock crushed or processed at all our global sites.

It is measured in tons of CO₂ equivalent per ton of feedstock (tCO₂e/ton).

Scope 1 emissions intensity increased slightly (0.1%) and biogenic emissions were up (6.0%) year on year in 2022, driven mainly by certain facilities where externalities required changes to fuel sources and consumption to support increased need for heat or steam production in industrial activities.

However, an overall reduction of scope 1 (down 7.7%) and biogenic (down 9.7%) was achieved for 2022 in comparison with our 2018 baseline, exceeding our reduction target of 5% for this period.

GHG Emissions Intensity

GHG Emissions Intensity (in tCO ₂ e/ton)	2018	2019	2020	2021	2022
Scope 1	0.0179	0.0176	0.0167	0.0165	0.0165
Scope 2	0.0700	0.0693	0.0774	0.0766	0.0740
Biogenic Emissions	0.0223	0.0185	0.0180	0.0170	0.0180

Scope 3 Emissions

We have worked actively over the past year to calculate LDC's global Scope 3 GHG emissions relative to 2022 activity data, including 13 out of 15 *GHG Protocol* categories.

Emissions from Purchased Goods and Services (category 1) represent the largest portion of our Scope 3 emissions. This category includes both farm-level emissions – such as fertilizers to grow crops – and emissions from land use changes.

We have aligned our calculation with the latest best practice guidance for our sector against the *GHG Protocol's draft Land Sector and Removal Guidance*, and used more granular, traceable and verified data, in addition to industry-wide average emissions factors for calculating land use changes.

The detailed results of our Scope 3 calculations will be submitted in our 2023 response to the *CDP Climate Change 2023 questionnaire*.

Addressing the climate impact of LDC's value chains is a key component of our strategy, and we have identified and implemented actions to reduce Scope 3 emissions across LDC's geographies and business platforms.

An important lever to reduce Scope 3 emissions related to land use is LDC's **commitment to zero deforestation** by the end of 2025, announced in 2022, with deforestation and native conversion reference dates of November 2016 for palm and January 2020 for soy and other commodities. This commitment builds on LDC's existing policies on traceability, reporting and supplier engagement for specific commodities, including our *Coffee Supplier Code of Conduct*, *Palm Sustainability Policy*, *Soy Sustainability Policy* and *Juice Conduct Manual for Raw Material Suppliers*.

LDC also offers certified products (soy, palm, coffee, cotton, juices and sugar) and delivers these with assurances of sustainability and climate credentials, via certification schemes that include specific requirements on GHG emissions levels and climate action along the product supply chain.

Regenerative Agriculture

Supporting farmers in adopting more sustainable and regenerative agricultural practices is another important lever to reduce our Scope 3 emissions.

In 2022, LDC continued to work alongside the *Louis Dreyfus Foundation* and other partners to promote among hundreds of farming communities the adoption of a variety of sustainable farming practices, many of which

reduce emissions or sequester carbon, and some of which are detailed in the *Farmer Engagement* section of this report.

In addition, we planted some 1.7 million trees in and around LDC-managed citrus farms in Brazil, during the course of 2022.

Identifying Climate Risks

As part of a collaboration program with the *European Bank for Reconstruction and Development*, in 2022 LDC completed a study with *Wageningen University & Research* to identify physical climate risks and estimate their impact in both 1.5°C and 4°C climate scenarios within LDC's grains supply chains in Ukraine and cotton supply chains in Turkey.

Furthermore, the Carbon Solutions Platform identified the following relevant physical risks for LDC global value chains:

- **acute risks:** extreme weather events – draughts, river floods, and fires induced by heatwaves-can impact our facilities, chartering and logistics operations, and suppliers.
- **chronic risks:** changing precipitation patterns, persistent temperature changes, increased soil degradation and erosion, and rising sea levels can affect agricultural production, storage and processing facilities, and logistics and trade operations.

The most relevant transition risks for LDC are current and emerging carbon regulations, including the **federal carbon pricing scheme in Canada**, affecting our Yorkton canola processing facility, and the extension of the **EU Emission Trading System to the shipping sector**, impacting LDC's chartering operations in and out of Europe.

LDC is well prepared to comply with these emerging regulations – for example, we are already trading European emission allowances and working to reduce the CO₂ footprint of chartered vessels, and in Canada, LDC already complies with Saskatchewan's carbon pricing system and is evaluating measures to reduce the emissions footprint of our Yorkton facility, namely through use of renewable electricity.



Targets

Reduce CO₂ emissions (in tCO₂e/ton, and excluding Scope 2) 1% year on year



Completion: **2022**
Status: **Missed***

*CO₂ emissions increased year on year in 2022, driven mainly by certain facilities where externalities required changes to fuel sources and consumption to support increased need for heat or steam production in industrial activities.

Reduce CO₂ emissions (in tCO₂e/ton, and excluding Scope 2) 1% year on year from 2018-2022



Completion: **2022**
Status: **Complete**

Reduce electricity and energy consumption (Kwh/MT) 1% year on year



Completion: **2022**
Status: **Missed***

*Although 56% of our sites saw improvements with regard to energy & electricity consumption, the overall figure increased marginally (0.17%) year on year in 2022, due mainly to throughput issues at certain facilities.

Reduce electricity and energy consumption (Kwh/MT) 1% year on year from 2018-2022



Completion: **2022**
Status: **Complete**

Measure, monitor and reduce baseline Scope 1, 2, 3 GHG emissions, reporting results from 2023



Completion: **2022**
Status: **Complete**

Adopt new, science-based targets for our GHG emissions



Completion: **2023**
Status: **In progress***

*Complete for Scopes 1 & 2; in progress for Scope 3.

Understand physical and transition climate risks affecting the Group's value chains, reporting results



Completion: **2024**
Status: **In progress**

New Targets

Reduce global Scope 1 and 2 emissions by 33.6% (compared to 2022 baseline)



Completion: **2030**

Land Use Change

Land use change is defined as the effect human beings have on land and associated ecosystems. The way land is used to produce agricultural goods is central to many environmental and socio-economic issues facing the world today, with historically profound consequences for biodiversity, climate change and vulnerable communities whose livelihoods primarily depend on land use.

LDC's primary activity is to source, process, transport and distribute agricultural products. As our activities are connected with the use of millions of hectares of land for agriculture, we recognize our responsibility to encourage and support responsible land use in our global supply chains, acting to eliminate deforestation, native vegetation conversion, and biodiversity and water resource loss for agricultural purposes, as a key priority in our sustainability strategy.

At the 38 citrus farms managed by LDC in São Paulo State, Brazil, we have mapped biodiversity priority areas at each farm, as a basis to develop specific Biodiversity Protection and Conservation Plans to monitor and protect sensitive areas. We have so far mapped a total of around 11,000 hectares of areas for conservation, in which we have planted more than 28,500 native tree seedlings in 2022.

We have also established specific policies for priority supply chains with high exposure to deforestation and biodiversity loss, including **soy**, **palm** and **coffee**. These policies have guided our work to engage with and train suppliers, drive supply chain traceability and apply land use monitoring on our supply base, addressing any instances of non-compliance.

In early 2022, we took an important further step with our **commitment to eliminate deforestation and native vegetation conversion for agricultural purposes in all our supply chains, by the end of 2025**. This commitment is central to both our business and climate plans, going beyond sectoral commitments and roadmaps by adopting deforestation and native vegetation conversion reference dates at November 2016 for palm and January 2020 for soy and other commodities.

To meet this goal, and in consultation with key stakeholders, we have developed a methodology to assess supply chain deforestation and conversion risks, and verify deforestation- and conversion-free product volumes. This methodology was applied to our global supply chains in order to identify hotspots and establish our deforestation- and conversion-free baseline, as a foundation to formulate an action plan toward our 2025 target.

Collaboration & Partnerships

We strongly believe that in a complex global food system, responsible land use can only be achieved through collaboration among farmers, agribusinesses, customers and end-consumers, but also governments, the financial community and other supply chain stakeholders. Accordingly, LDC actively participates in multi-stakeholder initiatives aiming to forge sector-level transformation.

COP27 Roadmap

After a group of agribusinesses (including LDC) issued a **Statement of Purpose** at the UNFCCC Conference of the Parties (or COP 26) in 2021, committing to develop a shared **roadmap** for halting forest loss from agricultural production consistent with a 1.5°C pathway, this roadmap was launched at COP 27 in 2022, indicating the sectorial commitment to end supply chain deforestation by 2025 and setting an emissions reduction target related to land use change.

Roadmap signatories continue to work in 2023 to develop implementation plans, to be published at COP 28.

Soft Commodities Forum

LDC is a founding member of the *World Business Council for Sustainable Development's Soft Commodities Forum* (SCF), which brings together six leading agribusinesses to look for feasible solutions toward reporting frameworks on supply chain deforestation risk in Brazil's Cerrado biome.

In 2022, the SCF launched the **Farmer First Clusters initiative** to implement projects in priority municipalities that will incentivize responsible land use and conservation of forest and native vegetation, and mobilize resources (in and beyond the supply chain) to scale up these initiatives. Engagement is since ongoing with governments, foundations, companies active further downstream in the value chain, as well as other food and agricultural value chain stakeholders.

ViSeC

LDC is a member of *Visión Sectorial del Gran Chaco Argentino* (ViSeC) a sectoral initiative promoted by *The Nature Conservancy* and the *Argentine Edible Oil Association (CIARA)* that aims to promote an environmentally responsible and economically viable value chain. In this forum, key players in Argentina's agricultural production, processing and trading sectors come together with government agencies and other stakeholders to develop collective solutions to reduce environmental and land use change impacts from agricultural expansion in the Gran Chaco biome.

In 2022, ViSeC initiated the development of a national traceability platform for zero deforestation soy in Argentina. Once completed, producers, aggregators, crushing plants and other soy supply chain actors will be able to upload and access supply chain data on the same digital platform, ensuring full transparency of the chain.

Global Supply Chain Risk Assessment

In 2022, we conducted an extensive deforestation and land conversion risk assessment for all of LDC's global supply chains. Working with external service providers, our Remote Sensing team overlaid 2017–2021 deforestation and conversion data with planting area data for specific crops, in order to identify at-risk regions at global and country levels.

The exercise produced a list of at-risk municipalities and regions across supply chains, as a basis to apply a risk-based approach to further deforestation and conversion due diligence, whereby all sourcing from at-risk regions requires further traceability, deforestation monitoring and supplier engagement.

We aim to repeat this risk assessment exercise every two years on an ongoing basis, to capture possible changes in land use patterns and adjust our due diligence accordingly.

Farmer & Supplier Engagement

Pursuing our work to drive change at the heart of the food chain, by **engaging with the farmers** whose production methods are key to conserving natural resources and habitats, in 2022 we supported and trained hundreds of farming communities connected with our business across three continents, with the aim of empowering them to increase their yields sustainably through regenerative agriculture practices.

Achieving our responsible land use ambition will only be possible if our suppliers are aligned with the same commitment, and while LDC originates agricultural products directly from farmers, we also procure from non-farmer suppliers such as cooperatives, aggregators and trading companies.

Engagement with these suppliers accelerated in 2022, through two training workshops for Indonesian suppliers, a webinar for suppliers in Latin America, and one-to-one meetings with individual suppliers. These covered LDC's deforestation-free commitment and related supplier expectations, traceability and deforestation monitoring, compliance with EU deforestation regulation and other topics.

We will continue to roll out dedicated engagement programs for indirect suppliers, with a focus on those in at-risk regions, and offer support in driving supply chain traceability and due diligence efforts.

Traceability and Monitoring

To this point, supply chain mapping and traceability is a prerequisite for supplier due diligence, which is why LDC continues to push to advance traceability in priority supply chains, including **palm** and **soy**, whereby suppliers are requested to provide detailed information about their sourcing base, supported by satellite imaging of areas where we have farm, plantation and mill data to detect if deforestation is taking place.

For our global palm supply chain, we receive deforestation and peat alerts on a bi-weekly basis to take action in case of validated non-compliance, in accordance with our grievance resolution protocols.

As we continue to drive traceability for other supply chains, we will replicate existing monitoring tools to cover more supply bases.

Targets

Eliminate deforestation and native vegetation conversion for agricultural purposes from LDC supply chains



Completion: **2025**

New Targets

Extend satellite monitoring to all at-risk regions for LDC global supply chains



Completion: **2024**

Water Management

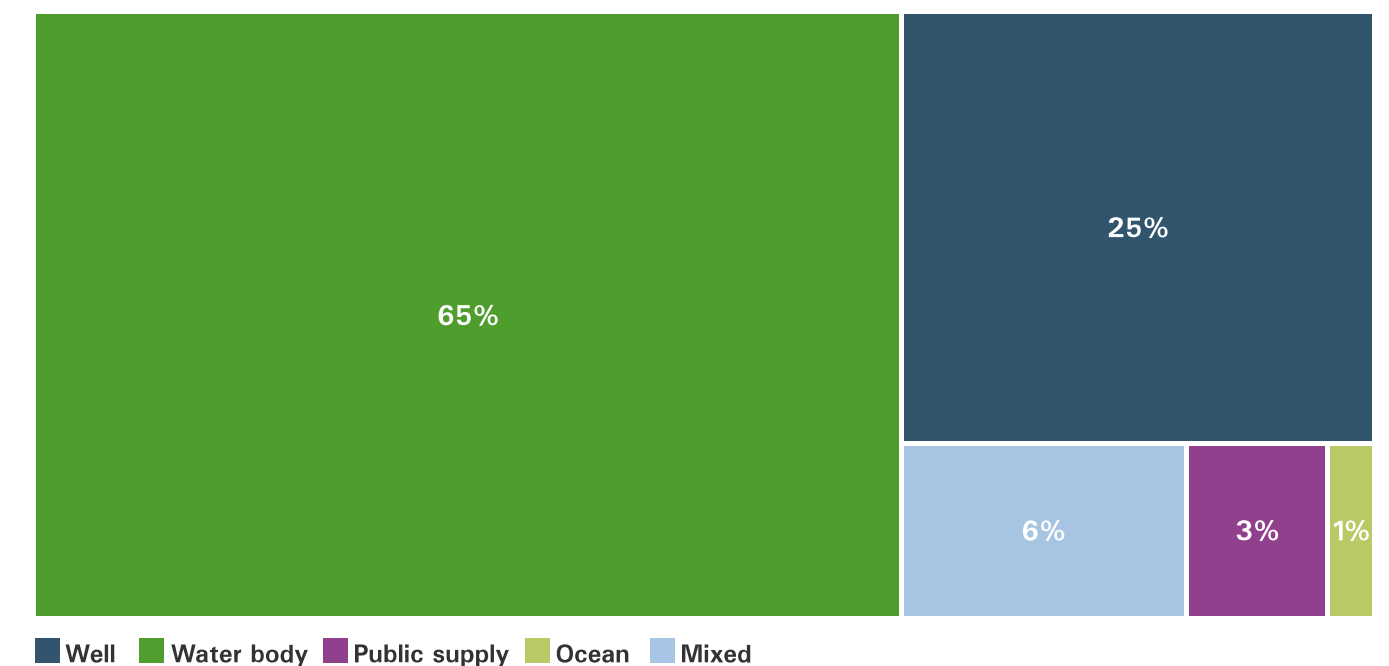
At LDC, we are committed to addressing water scarcity and access in our own operations and across our value chains. To this end, we work to promote sustainable water use, minimize operational water usage, protect water resources and avoid watershed contamination.

The index we use to measure water usage shows the ratio of water used for each metric ton of feedstock crushed or processed. It is measured in cubic meters per metric ton (m³/MT).

We are pleased to report that in 2022 we recorded a year-on-year reduction of this index by 8.5%, and an overall reduction of 13.4% from our baseline 2018 figure, exceeding our target to reduce water consumption by 5% between 2018 and 2022.

Most of the 2022 reduction was driven by LDC-managed citrus farms in Brazil, where we saved over 3M m³ year on year, due in part to more consistent weather conditions versus 2021, but also to systematic implementation of sector best practices in irrigation, including the installation of a new, eco-efficient drip irrigation system.

Water Withdrawal 2022



Case Study

Improved Water Management in Alto Araguaia, Brazil

Acting continually toward increasingly sustainable operations, our Alto Araguaia soy crushing plant implemented significant improvements in its industrial effluent recycling process, with wastewater generated by industrial activities now used in the cooling tower.

The plant no longer draws water to use as a cooling agent and has become our first asset in Brazil to have zero wastewater, saving 110,000m³ in water usage for 2022 alone (with additional savings expected in the years ahead) and triggering action to reduce water consumption at other crushing plants. The plant also recorded zero waste sent to landfill in 2022 – a remarkable result in a year where the asset ran at full capacity and processed record soy volumes.

Targets

Reduce water consumption 1% year on year



Completion: 2022
Status: Complete

Reduce water consumption 1% year on year from 2018-2022



Completion: 2022
Status: Complete

Waste Management

Throughout our operations and facilities, we remain committed to minimizing the volume of solid waste sent to landfill, through waste recycling and upcycling along LDC's value chains.

Waste management at LDC comprehends the collection, transport, processing and disposal of waste materials, the last step of which is carried out through various methods, such as incineration, recycling, composting and landfilling.

The index we use to measure waste management shows the volume of solid waste produced and sent to landfill for every ton of feedstock crushed or processed. It is measured in kilograms of waste per metric ton of feedstock (kg/MT).

In 2022, this index increased 12% year on year globally, with all our geographies (except North Asia) recording increases, mainly due to a large upsurge of construction projects as part of our strategic growth plans, which generated significant volumes of solid waste.

Nevertheless, we are pleased to report an overall reduction of 74% for 2022 in comparison with our 2018 baseline, far exceeding our reduction target of 5% for this period, thanks to a collective effort across the Group to reduce waste generation, reuse materials and recycle as much as possible.

Waste Generated

TYPE	TONS
Non-hazardous	55,126.72
Hazardous	11,800.41
Total	66,927.13

Case Study

Waste Recovery, Argentina

At our General Lagos plant, we signed an agreement with our supplier, *WORMS*, for the donation to the local community of organic compost created through treatment of part of the organic waste from our plant.

Community organizations use the compost in afforestation projects and as plant fertilizer in local public spaces.

Targets

Reduce solid waste to landfill 1% year on year



Completion: 2022
Status: Missed

Reduce solid waste to landfill 1% year on year from 2018-2022



Completion: 2022
Status: Complete

Social

The Social pillar of our ESG framework outlines how LDC interacts with employees, partners, societies and communities connected with the Group's operations and activities.

From the approximately 17,000 employees who work directly for LDC, to the many contractors who work for and with us, our first priority is to keep everyone safe and well, continually striving to embed a strong culture where health and safety come first, at every LDC site globally.

Supporting the farming communities on whose production and practices we all depend is also essential to shape more sustainable food and agricultural production. Working in collaboration with partners, we engage in projects to train and empower farmers – in particular to adopt more sustainable farming practices that can help smallholder improve their yields and livelihoods, while conserving soil health, natural vegetation and biodiversity.

Equally, as part of our determination to protect the welfare of communities connected with our business, we are guided by a [Group Code of Conduct](#) that forbids any practices that infringe human rights, proactively apply [United Nations recommendations](#) in this respect as signatories of the UN Global Compact since 2010, and set the same standards for our partners.

We also respect and embrace diversity in all forms, and work continually to shape an increasingly inclusive workplace and culture across the Group, understanding that different ideas and perspectives support an agile company mindset – a key driver of long-term success.

Safe Workplace

Continual efforts to ensure a zero-accident workplace are a cornerstone of LDC's commitment to responsible business, putting safety first in everything we do and ensuring strict compliance with regulations that protect every person across our operations. This is a priority in everything we do – all day, every day, 365 days a year.



Record SHE Investment

In 2022, we increased our capital expenditure in Safety, Health & Environment (SHE) initiatives, measures and awareness campaigns by 24%, investing a record US\$40.9 million for the year, with the largest percentage of capital expenditure geared toward strengthening our Process Safety Program.

As a result of these efforts, in 2022 we were able to report another all-time record in terms of our safety performance indexes, with the lowest accident frequency and gravity rates ever reported at LDC.

These results advance LDC's continual journey toward our **Commitment to Zero**, aiming to ensure a zero-accident workplace across our sites.

Safety Performance Indexes

Frequency



The frequency index* shows the number of industrial and logistics workplace injuries requiring medical attention, in relation to hours worked.

↓ **Down 14%**
year on year

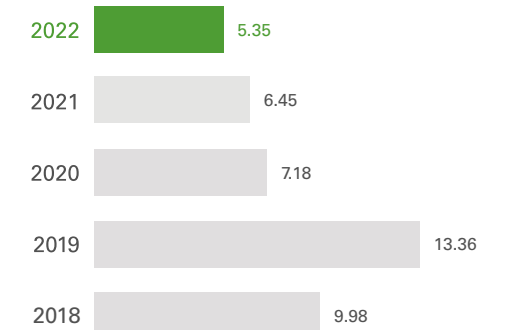
Gravity



The gravity index is a subset of the frequency index*. It shows the number of industrial and logistics workplace injuries serious enough to result in time away from work, in relation to hours worked.

↓ **Down 21%**
year on year

Severity



The severity index* shows the number of days needed away from work due to injury, in relation to hours worked, for industrial and logistics workplaces.

↓ **Down 17%**
year on year

*Our indexes cover employees and contractors (excluding temporary contractors) and are calculated per 200,000 hours worked, as per the US Department of Labor Occupational Safety & Health Administration (OSHA) methodology.

Work-Related Injuries

LDC expects every safety incident to be reported within 24 hours through ‘SHE Digital’, our safety data management software. We also compile monthly working hours and review indexes across all LDC sites and offices.

	2022
Total Recordable Incidents	91
Total Lost Time Injuries	38
Total Lost Days	1,321

The most important root cause of accidents that occurred in 2022 was a lack of Lockout /Tagout (LOTO) – a safety procedure used in industry to ensure that dangerous machines are properly shut off and cannot be started up again until maintenance or servicing is completed.

Accidents can occur when LOTO procedures are not followed correctly, which can result in serious injuries or even fatalities. Recognizing the importance of taking immediate action to address this issue, we conducted a thorough review of existing LOTO procedures, in addition to providing ongoing training, and conducting regular reviews and updates.

LDC also focuses on hierarchy of controls – a step-by-step approach to reduce or eliminate workplace risks and hazards, ranking controls from the most effective level of protection to the least effective, as follows: elimination, substitution, engineering control, administrative control and personal protective equipment.

Fatalities

Unfortunately, despite a continued positive trend across safety metrics, we regret to report one fatality in March 2022, at LDC’s juice processing facility in Matão, São Paulo State, Brazil, after an employee was struck by a falling gate during trail cleaning and passed away as a result of the injuries.

The subsequent investigation led to the identification and implementation of additional gate safety standards and process improvements to avoid a derailment.

One important action taken to control hazards through engineering control was with regard to improving ladders used for manual harvesting, mitigating the risk of falling off ladders during orange harvests, by installing an anti-rotation kit to reduce instability by 94%. Despite the scale of agricultural operations at LDC-managed citrus farms in Brazil, spanning 25,000 hectares and almost 6,000 employees at peak harvest season, we are pleased to report significant reductions in accident gravity (down 66% year on year) frequency and severity (both down 33% year on year) for these activities.

Work-Related Illness

In 2022, LDC did not record any fatalities as a result of work-related illness, nor any recordable work-related illness. All work-related illness is registered via SHE Digital.

Advancing Our Safety First Culture

PSP 2.0

First launched in 2015, our Process Safety Program (PSP) aims to build a strong safety culture at LDC, helping everyone working at our sites to identify hazards and mitigate risks proactively.

With PSP 2.0, we have strengthened our model to further mitigate potential risks in our operations by updating policies and procedures, ensuring every employee understands the hazards and risks associated with the site, job and equipment relevant to them, and is sufficiently in control of those risks to perform their work safely and efficiently.

Digitalization for Workplace Safety

In 2022, we rolled out four additional modules of LDC’s SHE Digital system (launched in 2021), dealing with subjects such as risk work permits and personal protective equipment (PPE) controls.

As part of our digitalization roadmap, we also continued to embrace technology-enabled innovations with the potential to enhance safety, efficiency and environmental performance across our operations.

For instance, workers in 33 Latin American industrial facilities were supplied with assisted reality devices that connect them with remote experts in real-time while operating, inspecting or maintaining equipment. This allows for voice-controlled, hands-free work in potentially hazardous areas, improving safety and productivity, and reducing operational errors.

SHE Day 2022

Each year, LDC teams come together worldwide to celebrate our collective SHE culture and commitments.

On March 17, 2022, more than 8,000 employees, contractors and partners worldwide participated in LDC’s annual SHE Day to acknowledge the importance of working safely, adopting a healthy lifestyle and safeguarding the environment.

Through activities from presentations to practical exercises, games to quizzes, the day re-emphasized our focus on SHE with a focus on the three key themes outlined below.

Stand Up for Safety

While we continually evaluate operational processes for safety risks, we recognize that effective safety in the workplace relies on our people taking personal responsibility for making the right decisions and complying with all relevant laws, regulations and codes.

SHE Day called on our teams to be champions of care, standing up for their own and others’ safety and speaking up when they see at risk-behaviors.

In It Together

We regard the personal wellbeing of our employees as fundamental to reach our full potential – individually and as a company. Building on protocols put in place to protect our people during the Covid 19 pandemic, we continued to encourage and support our people to stay physically and mentally fit, observing good health and hygiene practices to stay fit and ensure a safe, healthy workplace for all.

Less Is More

As a leading global agricultural merchant, we understand the importance of conserving the natural resources we depend on for the future of the environment we work and live in. On SHE Day, we reinforce the importance of acting to save energy, recycle and avoid waste, and reduce emissions and water consumption – at work and at home.

Targets

Reduce lost time injuries to zero



Completion: **Ongoing**
Status: **In progress**

Reduce frequency of workplace accidents by 5% year on year



Completion: 2022
Status: **Complete**

Reduce gravity of workplace accidents by 5% year on year



Completion: 2022
Status: **Complete**

Reduce severity of workplace accidents by 5% year on year



Completion: 2022
Status: **Complete**

Roll out four more modules as part of LDC's new digital SHE system



Completion: 2022
Status: **Complete**

New Targets

Reduce frequency of workplace accidents by 5% year on year



Completion: **2023**

Reduce gravity of workplace accidents by 5% year on year



Completion: **2023**

Reduce severity of workplace accidents by 5% year on year



Completion: **2023**

Farmer Engagement

At LDC, we are committed to making a positive difference in the communities in which we operate. We do this by creating jobs, supporting social welfare initiatives and, importantly, by empowering smallholder farmers to increase their productivity and profitability sustainably.

Working in partnership with the *Louis Dreyfus Foundation*, local experts and a wide range of other partners, we leverage our networks and internal expertise to drive the adoption of sustainable agricultural practices as a path to improved livelihoods and greater resilience for farming communities, while protecting the environment.

In addition, we encourage our employees to lever their knowledge and insights to identify and engage with opportunities to participate in various educational, environmental, health, food security and other projects that directly benefit their local communities.

Case Studies



Supporting Farming for Health, Canada

Since 2014, our team in Yorkton, Saskatchewan, Canada, has partnered with *The Health Foundation* on the '*Farming for Health*' initiative, for which committee members have pooled their resources and expertise to grow and harvest crops on land donated to the project, the sale of which generates funds for better local healthcare.

As a founding member of the committee, LDC has helped to raise over US\$2 million overall, toward building a new hospital in the region and upgrading equipment for the existing health facility.

“We are fortunate to have a knowledgeable group of volunteers for every aspect of successfully growing a crop. This project benefits everyone in the local community – including our employees and business partners – and a new hospital helps attract and keep more people in the region.”

Darryl Flunder

Procurement Manager for LDC's facility in Yorkton

Our Impact

Project spend in 2022:

Over US\$1.38 million toward hospital infrastructure and equipment for the emergency room and intensive care unit.



Enhancing Rice Production, Côte d'Ivoire

This joint project with the *Louis Dreyfus Foundation* and *FairMatch Support* aims to establish the framework for a sustainable rice supply chain, from smallholder farmers to mills, in Boundiali and Korhogo, northern Côte d'Ivoire.

First established in 2018, this project connects rice producers with processors, and then processors with the market, to build an inclusive, traceable and sustainable supply chain, helping the area's rice sector transition from subsistence farming to small-scale commercial agriculture.

Farmers are segmented into 'emerging producers' (subsistence farmers) and 'agri-preneurs' (market-oriented farmers), to offer support tailored to their production profile and ensure rice production for both self-consumption and sale on the local market.

The project also aims to improve the food security of women farmers through better farm management and provision of agricultural equipment to over 1,352 women farmers, and supports the *National School Canteen Program*.

Our Impact

Beneficiaries in 2021-2022:

3,962 farmers, 160 lead farmers and 13 cooperatives

Average income increase:

41%

Average productivity increase:

26% for agri-preneurs,
22% for emerging farmers



Vocational Agri-school, Côte d'Ivoire

In 2019, in collaboration with the local government, the *Louis Dreyfus Foundation* and French agri-agency *Fert*, we opened a vocational agricultural school in Côte d'Ivoire, *Centre de Formation Agricole et Rurale* (CFAR) to empower young talents in the country to build a sustainable professional future for themselves in agriculture, with indirect benefits for their communities.

CFAR offers a two-year program that combines theoretical and practical training, with particular focus on sustainable agriculture practices and environmental preservation. The curriculum covers general topics such as mathematics, computer science and economics, as well as vocational skills such as agronomy, soil science, crop and livestock production, and farm management.

To move into their second year, students must complete an internship to acquire practical experience that will facilitate entry to the professional market after graduation.

Our Impact

Beneficiaries:

66 students currently studying at the school

Proportion of female students:

40%

Students who graduated in 2022:

25

Farms set up by graduates to date:

32



Creating Shared Value for Maize

Smallholders, Kenya

This four-year project to increase food security, improve nutrition and drive climate resilience in Kenyan farming communities was launched in March 2022, in collaboration with *Solidaridad* and the *Louis Dreyfus Foundation*.

It aims to increase sustainable maize production, build farmer resilience to changing climate conditions, and promote gender and social inclusion in the value chain.

Our Impact

Beneficiaries in 2022:

48 lead farmers and 7 government agricultural officers trained, who will share their knowledge with other farmers. 1,561 more farmers trained on land preparation, soil structure, defense against weeds, use of cover crops and mulching, certified seeds, crop nutrition and fertility, use of organic manure, and pest and disease management.

Community leaders:

12 men and women recruited and trained on gender and social inclusion, business skills and upscaling their businesses, nutrition and healthy diets.

Demonstration plots:

5, used for training & practical demonstrations.

Case Studies



Supporting Women Smallholders, India

In 2020, working with the *Louis Dreyfus Foundation* and the *Centre for Microfinance*, LDC embarked on a five-year program to enhance the food security and cash incomes of women smallholder farmers in India's Tonk district, located in the semi-arid eastern plains of Rajasthan, a farming region with low productivity, limited rainfall and a high incidence of poverty.

In 2021, over 3,700 women farmers received training on planting methods, including pre-sowing, post-sowing, pest management and organic farming. Three hundred and twenty-two participants in this group were supported in developing vegetable production (including vertical planting methods) thanks to the establishment of two high-tech nurseries to supply healthy vegetable seedlings to participating farmers.

Phase 2 of the project started in 2022 to support farmers across almost 100 villages through crop distribution and training in natural farming techniques, aiming to establish vegetable gardens and increase production through improved livestock management practices (including vaccination, deworming and better nutrition). The project also scaled up the farmers' commercial vegetable production, helping to establish fruit orchards and water-harvesting ponds, and installing drip irrigation systems.

Our Impact

Beneficiaries:
4,594 farmers supported in 2022
Expected average productivity increase:
35 to 60%



Improving the Livelihoods of Palm Smallholders, Indonesia

Between 2020 and 2022, we worked with the *Louis Dreyfus Foundation* and *SNV* on a project to improve the livelihoods of palm oil smallholders in Mesuji, Lampung, and Oku, South Sumatra.

Over the course of the project, approximately 2,000 Indonesian smallholders received training in best management practices (BMP). The project also provided financial assessments to help individual participants apply for replanting loan schemes moving forward, and supported two cooperatives – one in each region – to attain *Roundtable on Sustainable Palm Oil* (RSPO) certification. Cooperative members benefit financially from being able to trade as RSPO-certified, and adherence to RSPO standards helps ensure the environmental sustainability of palm oil farming in the area.

Moving forward, all new cooperative members will be trained by their peers in BMP and RSPO *Principles and Criteria*, and each cooperative plans to develop a business unit to provide agricultural inputs for smallholder members.

Our Impact

Beneficiaries:
2,000
Certified cooperatives:
2 (representing 500 farmers)
Average farm productivity increase:
12%
Financial assessments complete:
1,000



Supporting a More Sustainable Cerrado, Brazil

This new, two-year project with the *Louis Dreyfus Foundation*, *Vbio*, *CEDAC* and *Coop Cerrado*, launched in 2022, aims to support smallholder farmers in Goiás, Minas Gerais and Bahia states, Brazil, while improving the area's soil quality and reducing pressure on Cerrado biome ecosystems.

The project supports farmers to form groups that will receive training on production and commercialization of native crop species, with a focus on agro-ecological practices, allowing farmers to transition to 100% chemical-free production.

Farms will be organically certified and connected with the Solidary Commercialization Network – a network of local producers that promotes valorization of local and indigenous products produced by traditional communities, providing a platform for participation in decision-making, production planning and marketing.

The goal is to facilitate market access, enable farmers to extract a better premium for their goods (without intermediaries and with additional premiums for organic production), standardize their production and reduce costs through shared equipment, storage and logistic costs.

Expected Positive Impacts:

- Increased productivity and income through application of sustainable agricultural practices;
- Higher product market value, through certification;
- Improved food security due to crop diversification and consumption of native species rich in micronutrients;
- Transition to organic production by improving production skills and practices;
- Biodiversity preservation through production of traditional crops and incorporation of traditional knowledge; and
- Reduced pressure on Cerrado biome ecosystems and long-term soil quality improvements.

Inclusive Workplace

As a leading global business that employs over 17,000 people worldwide, LDC strives to create a diverse and inclusive workplace wherever we operate, guided by our **Code of Conduct**, which condemns any discrimination based on gender, race, origin, religion, age, disability and sexual orientation or beliefs.

Inclusive Recruitment

As of 2022, all LDC geographies have now formally adopted our inclusive recruitment standard, to ensure we take an inclusive and competency-based approach

in each recruitment process, with a fair and transparent candidate experience that encourages diverse profiles to apply for job vacancies across LDC's organization.

Diversity, Equity & Inclusion (DE&I) Training

In 2022, our e-learning module on How to Recognize and Address Unconscious Biases was delivered to all new employees, as part of the mandatory training requirements.

Supplementary trainings and workshops for HR teams, leaders and employees were also organized in various geographies across the Group and covering a range of DE&I topics, including understanding unconscious bias, fostering DE&I in HR and business processes, gender equality, disability, ethnicity, sexual diversity and more.

Workplace Wellbeing

Recognizing the importance of mental and physical wellbeing for employees to feel supported, included and engaged, and attain their full potential, in 2022 we continued to roll out a wide range of initiatives and programs for the benefit of our teams in different offices around the world.

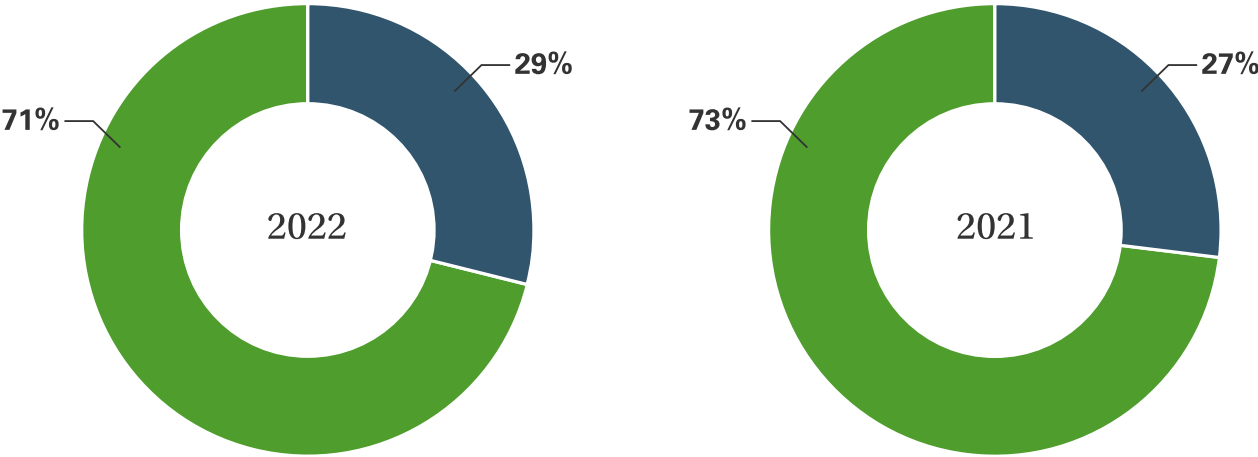
Examples of these include graduate mentoring programs, childcare support for employees with small children and amenities for new mothers returning to work (such as lactation rooms), free yoga and meditation classes, psychological counseling programs, 'trusted person' or 'buddy' schemes enabling employees to raise unethical behaviors, additional benefits such as time off for community work and access to sport facilities, sign language courses, events and sharing sessions to experience different cultures, and more.



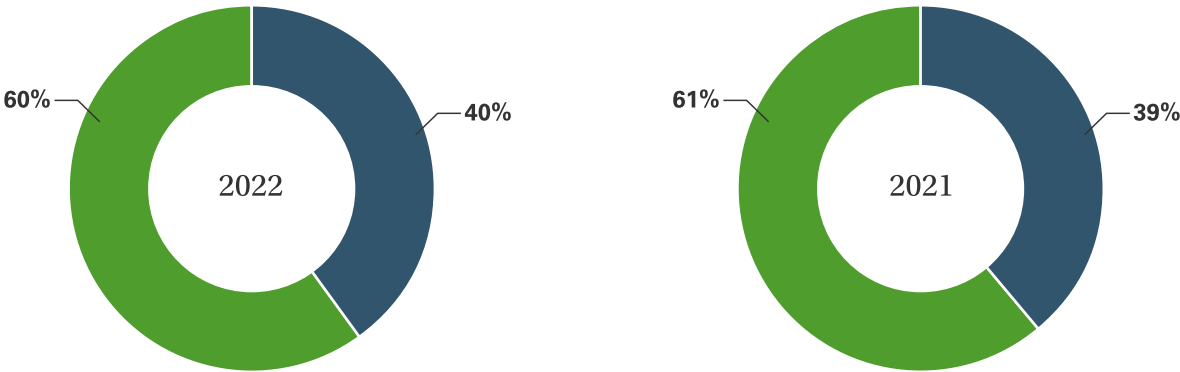
Gender by Region

Male Female

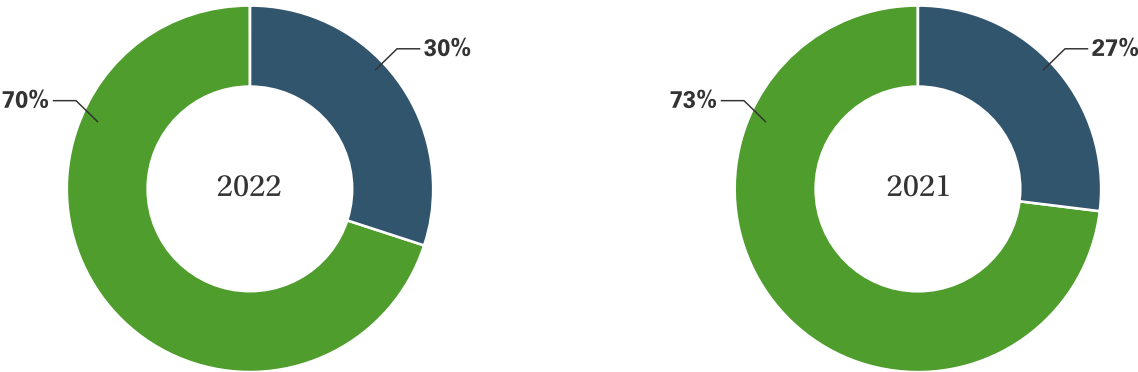
Global



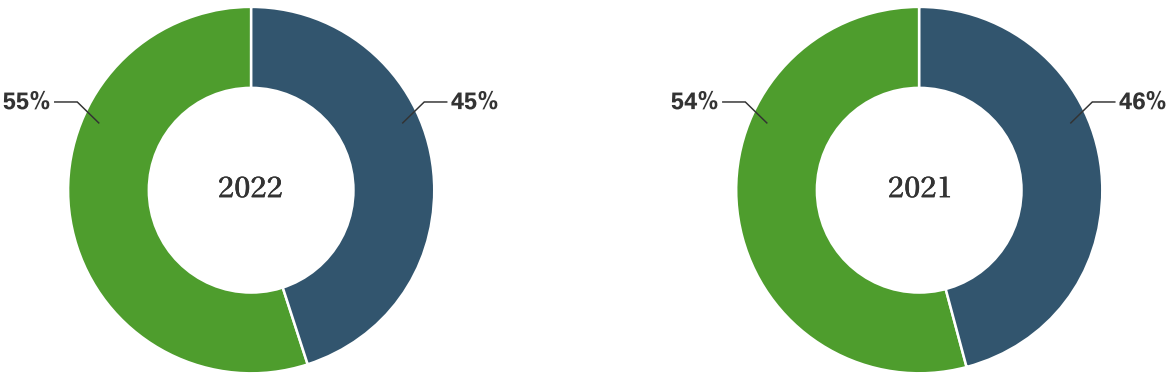
EMEA



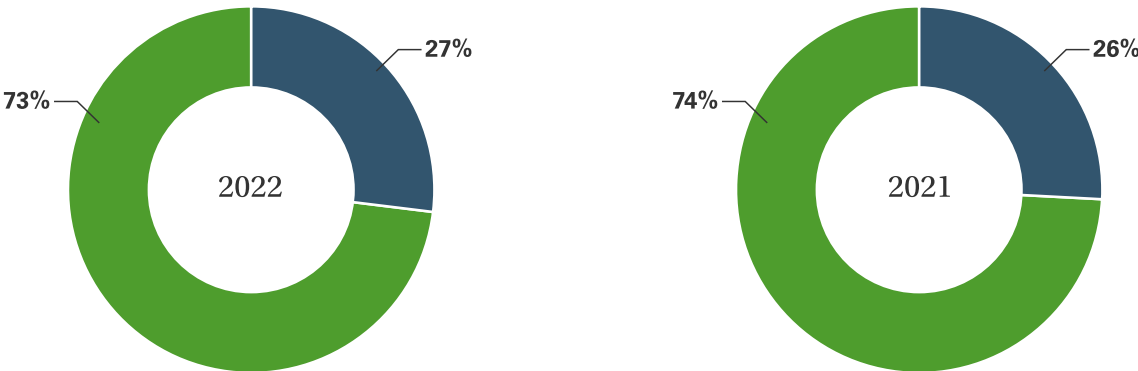
North America



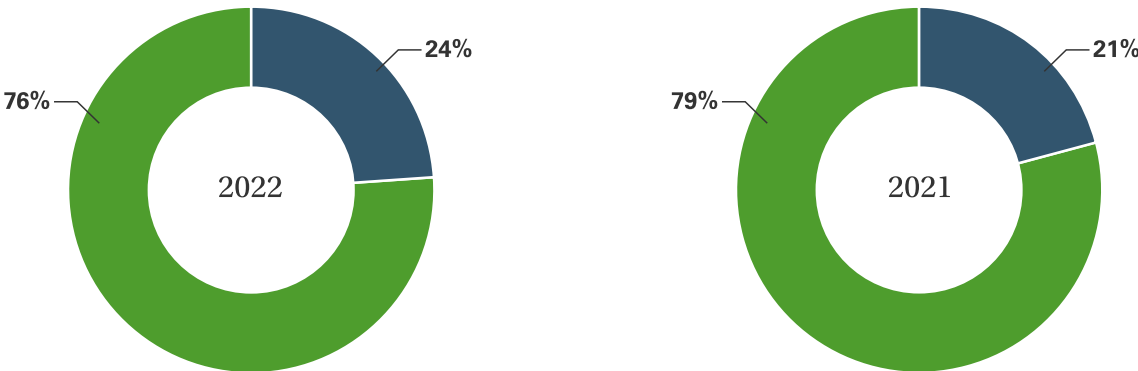
North Asia



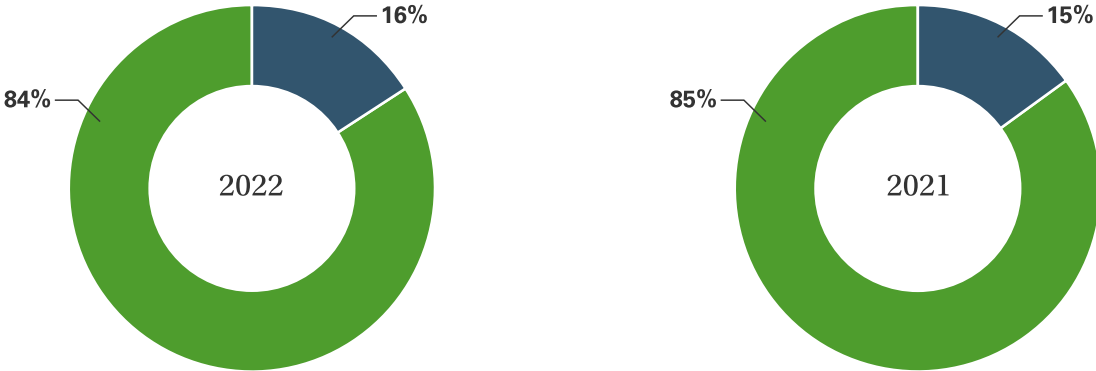
North Latin America



South & Southeast Asia



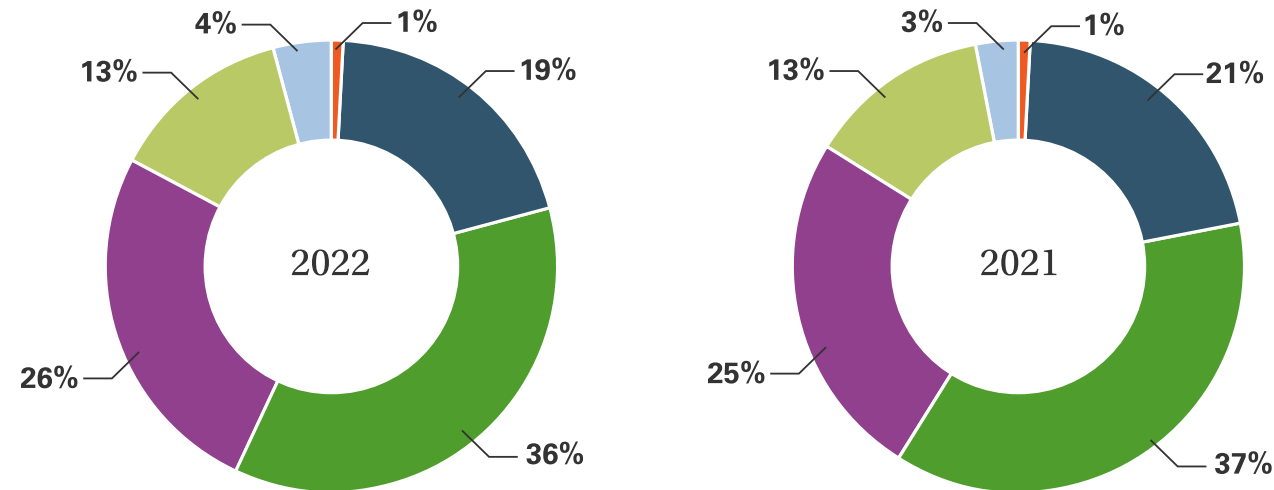
South & West Latin America



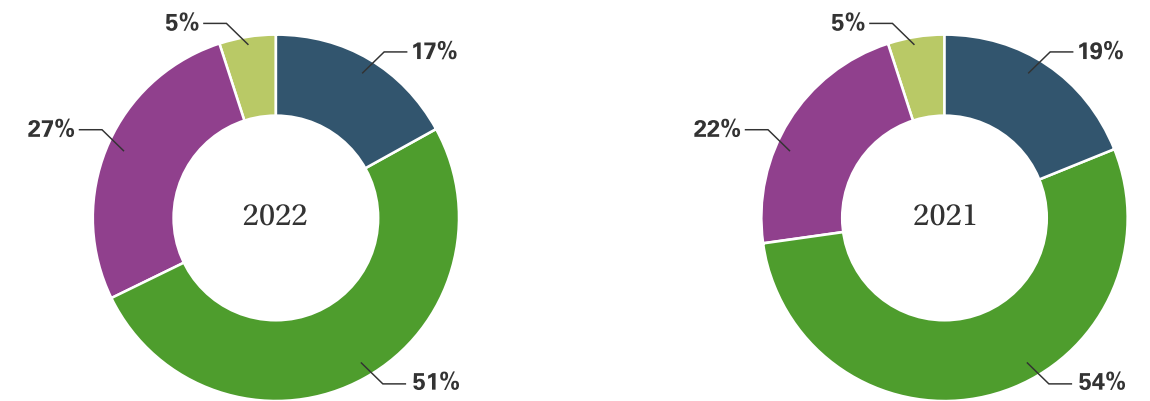
Age Group by Region

>20 20-29 30-39 40-49 50-59 60-69 70<

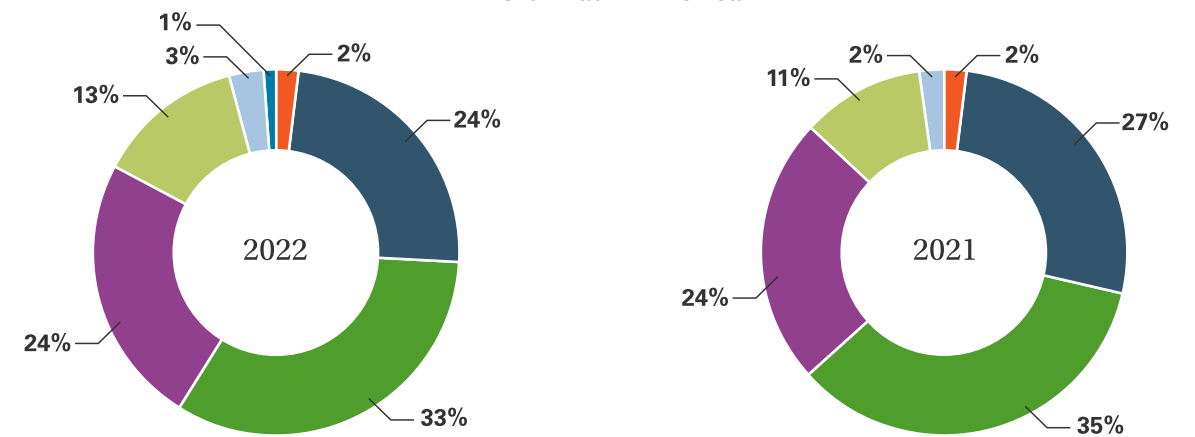
Global



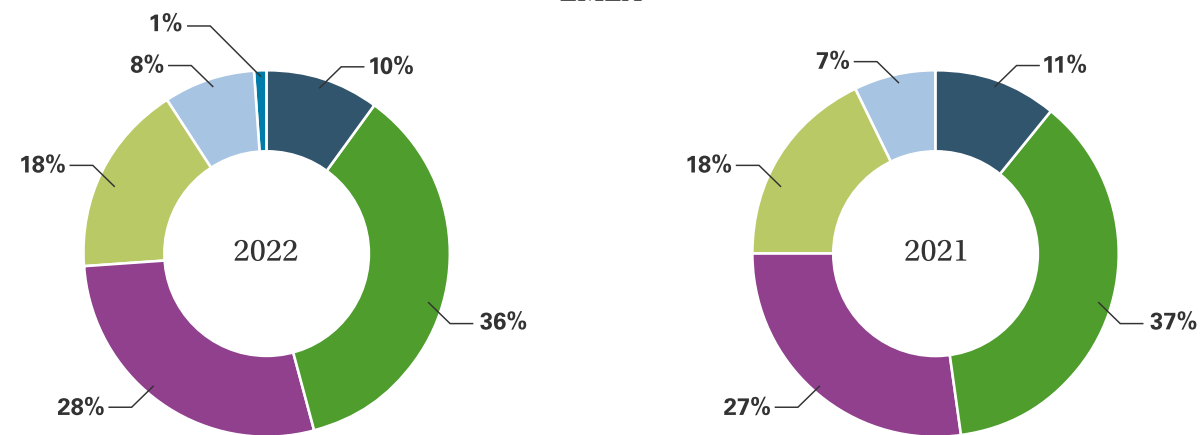
North Asia



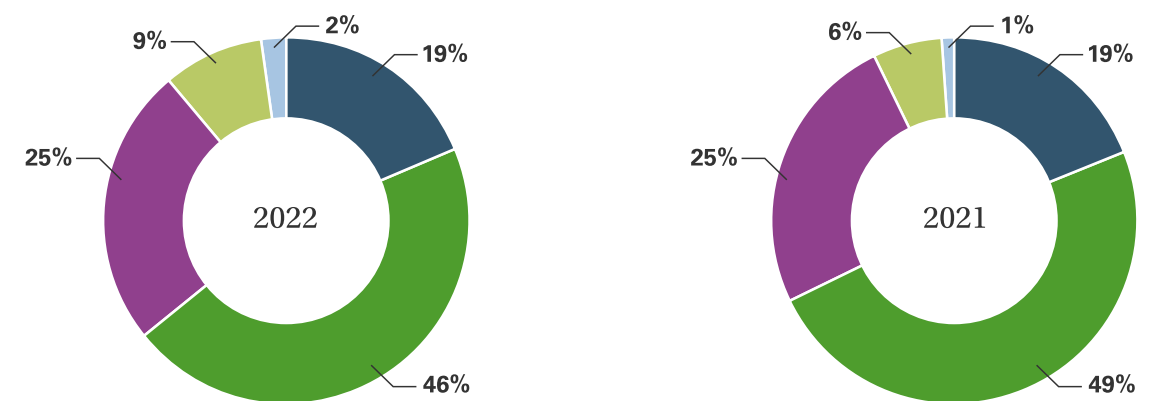
North Latin America



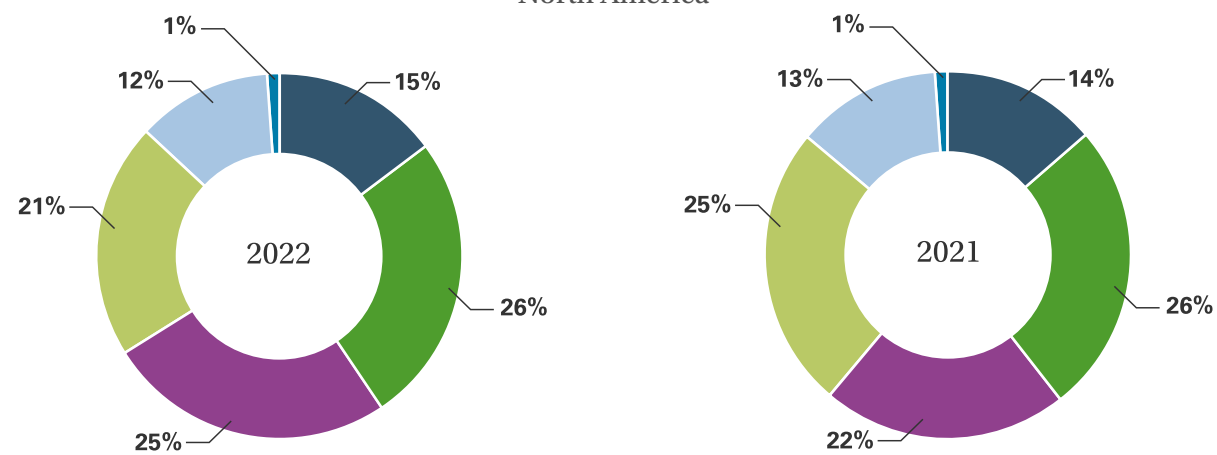
EMEA



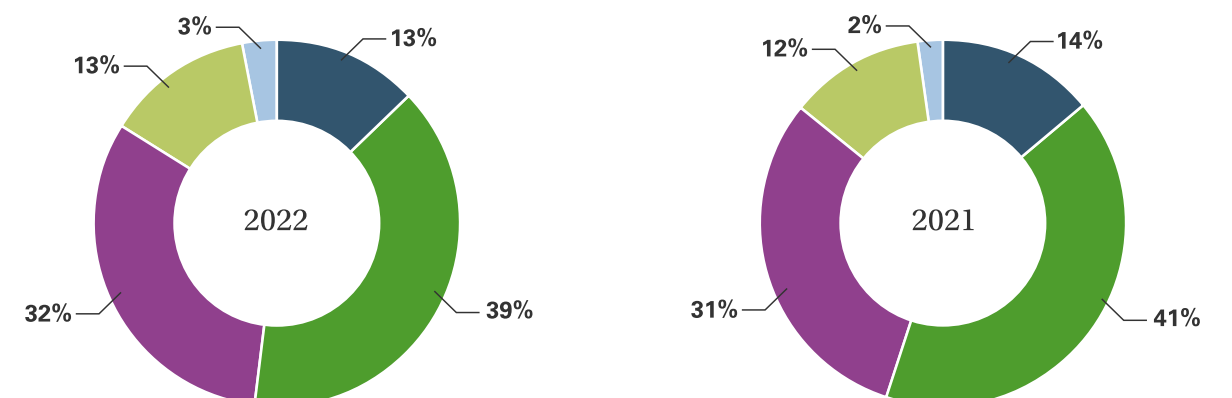
South & Southeast Asia



North America

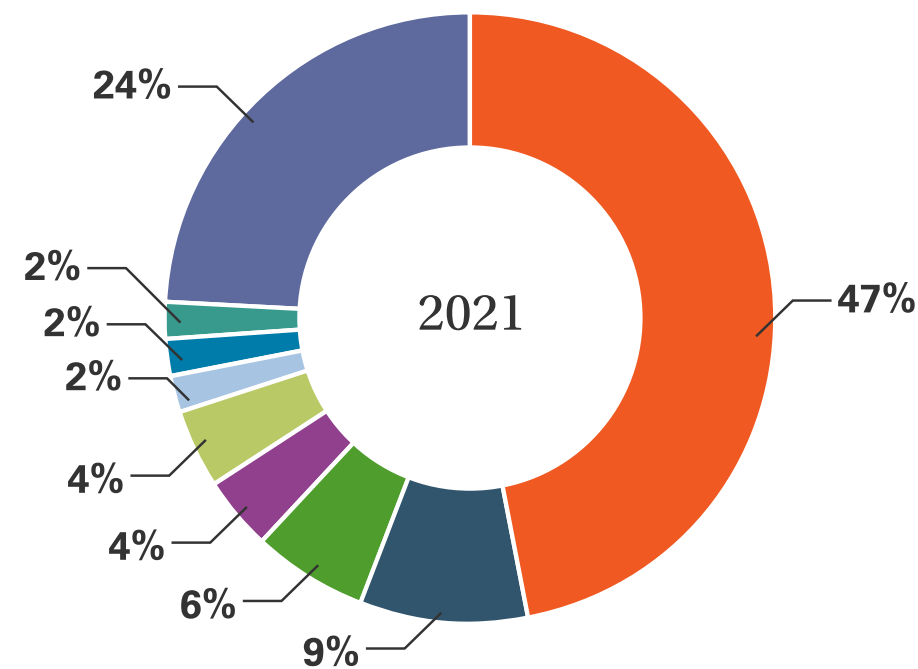
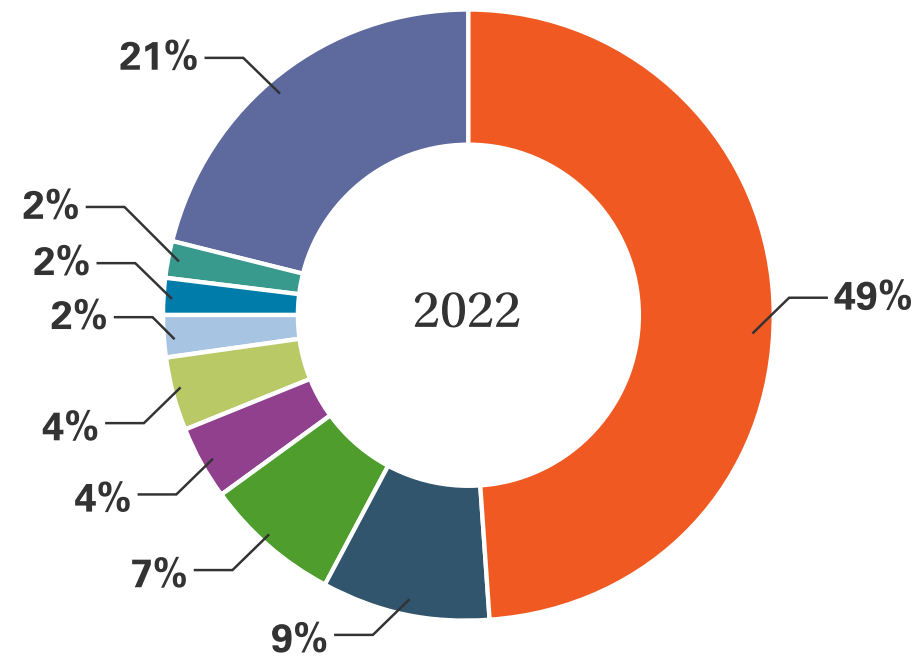


South & West Latin America



Nationality (% of employees*)

■ Brazil ■ Argentina ■ China ■ Russian Federation ■ India ■ Indonesia ■ Ukraine ■ France ■ Other



* Based on headcount as of December 31 for the years 2022 and 2021, excluding seasonal workers.
Note: nationality is not tracked in US locations.

Case Studies



Adult Education, Mexico & Argentina

In 2014, in conjunction with the *EEMPA 1310 Bandera Argentina* school, we established an adult education program to support employees at our General Lagos and Timbúes facilities in completing their secondary education.

Later, in 2018, we established an adult education program in Mexico with *Instituto Veracruzano de Educación para los Adultos*, enabling workers at our El Cofre coffee plant to complete elementary education studies.

The company supports the registration process for both programs, and also provides free use of its facilities for educational activities.

To date, the programs have benefited a total of 106 employees across both countries, 9 of whom completed their secondary education in 2022.



Employer Awards, China

In 2022, LDC was recognized as a **winner of the 100 Model Employers and Excellence in Employee Care Plan awards** in China.

Model Employer awards are presented to companies in China whose HR practices made a significant contribution to their corporate development and employee careers, based on Big Data screening and strict evaluation of HR data from a selection of 230 candidate companies. The award recognizes employers who attract, cultivate and care for talents, thereby obtaining outstanding performance and promoting sustainable development.

For the Employee Care Plan award, LDC was selected from 34 participating companies from the same industry, assessed against three criteria: company regulations and policies for employee rights, a harmonious and unified work environment, and employee benefits.

Targets

Roll out an inclusive recruitment standard globally across LDC



Completion: 2023
Status: Complete

Engagement scores indicate 75% perception of equal opportunities and treatment



Completion: 2025
Status: In progress

Engagement scores indicate 70% perception of culture where innovative ideas can fail without penalty



Completion: 2025
Status: In progress

Engagement scores indicate 90% perception of acceptance as an individual



Completion: 2025
Status: In progress

Engagement scores indicate 80% perception of culture where innovative ideas can fail without penalty



Completion: 2030
Status: In progress

Engagement scores indicate 85% perception of equal opportunities and treatment



Completion: 2030
Status: In progress

Human Rights

As a global company, we operate in diverse and complex cultural, legal, political and economic environments, but wherever we operate, we remain true to our principles and values, which underpin our success and are the foundation for the trust placed in us by our various stakeholders.

Guided by our company purpose, we strive to create fair and sustainable value in everything we do, and leverage our position as a global leader in our industry to encourage business and supply chain partners to do the same.

Accordingly, we seek to ensure strict compliance with applicable laws, regulations and standards, and engage with relevant stakeholders to address cases of human rights infringements in our value chains.

In particular, we seek to influence our supplier network to align with LDC's global and product-specific codes and responsible sourcing policies, which comprise commitments to upholding human rights, including our:

- Group Code of Conduct
- Code of Conduct for Coffee Suppliers
- LDC Soy Sustainability Policy
- LDC Palm Sustainability Policy

We also have an anonymous hotline – **EthicsPoint** – available for employees or external stakeholders to report any concerns over possible conduct that may be unethical, non-compliant or otherwise inconsistent with LDC codes and policies. This channel is hosted by a third-party service provider and all reported concerns are treated confidentially and anonymously, following existing grievance resolution procedures.

In 2022, LDC formally joined the *International Labour Organization* (ILO) **Child Labour Platform** – a cross-sectoral platform that aims to identify obstacles to the implementation of ILO Conventions in supply chains and surrounding communities, pinpoint practical ways of overcoming these obstacles and catalyze collective action.

Acting on the results of a materiality assessment conducted in 2022 as part of our sustainability strategy review, LDC has appointed a cross-commodity Group Human Rights Lead to spearhead our action plan, which aims to:

- Issue and roll out a Group-wide Responsible Sourcing Policy;
- Conduct a human rights gap analysis of our policies and procedures;
- Based on the outcomes of this analysis, design a new LDC Human Rights Governance Framework, including the adoption of a human rights policy;
- Conduct a corporate human rights risk assessment; and
- Based on the results of this assessment, determine and prioritize actions to address negative human rights impacts on stakeholders throughout our activities and operations.

Governance

Good governance and good business go hand in hand, as a strong governance framework supporting corporate decision-making is critical to building and maintaining stakeholder trust.

At LDC, the Supervisory Board oversees and advises Management in setting company direction and strategy, and approves company financial statements, but also plays a key role in addressing risk and compliance matters inherent to the business.

In this section, we report on how LDC:

- aligns its financing strategy and model with ESG goals;
- safeguards the data security and privacy of our stakeholders, through cybersecurity systems that protect from cyber attacks;
- integrates ESG criteria in procurement and sourcing processes, with reference to internal processes, systems and supplier compliance schemes that advance product traceability and enable responsible sourcing; and
- upholds ethical behaviors and ensures compliance with all applicable laws and regulations, building on the strong principles that guide our company.

Responsible Sourcing

As a global merchant and processor of a wide range of agricultural commodities, we are committed to actively and consciously sourcing and procuring products and services in an ethical, sustainable and socially responsible way.

As LDC does not directly control all origination sources, we leverage our leading position to promote the adoption of LDC sustainability policies and standards by our suppliers, as part of our continual work toward increasingly sustainable supply chains.

In line with this goal, we have adopted commodity-specific sourcing policies and codes of conduct designed to address specific sustainability challenges in some of our supply chains, including our [Coffee Supplier Code of Conduct](#), [Palm Sustainability Policy](#), and our [Soy Sustainability Policy](#). In addition, all Brazilian suppliers have to comply with [LDC's Brazilian Code of Conduct for Raw Material Suppliers](#). LDC suppliers are requested to formally acknowledge and undertake to comply with such policies, either contractually or through an onboarding process, and LDC teams are available to support them in addressing any potential gaps and challenges.

To further strengthen LDC's framework around responsible sourcing, in 2022 we began work on the adoption of a global responsible sourcing policy that will apply to all Group suppliers. As an overarching guideline that sets minimum sustainability standards, this policy will exist alongside current (and potentially future) commodity-specific policies, which will continue to offer additional and complementary guidance related to product-specific supply chains.

In case of conflict, the more restrictive policy will apply. As an exception, LDC's Brazilian Code of Conduct for Raw Material Suppliers will be replaced by the global responsible sourcing policy.

In certain regions, such as Brazil, LDC's supplier list is periodically checked against official public lists that register companies facing allegations in relation to sustainability issues such as human rights or environmental misconduct. If LDC discovers that a supplier is mentioned on such lists, the supplier is flagged for our commercial, sustainability and/or compliance teams to engage with them, in order to understand and assess the case and decide on the course of action, which may include suspension of the relevant supplier's contract(s) and corresponding payment until conclusion of the assessment.

Equally, some of our business lines have formal grievance procedures. For example, our [Palm Grievance Protocol](#) sets forth applicable procedures in the event that any grievance is raised by an external stakeholder in relation to our palm supply chain. This protocol ensures that LDC engages with the subject of a reliable grievance to understand the context and assess maintenance of the commercial relationship with the relevant supplier. Our global responsible sourcing policy will also ensure that a sustainability-related grievance protocol is in place Group-wide.

Progress on Traceability

In 2022, LDC pursued efforts to drive supply chain traceability, as a foundation for our responsible sourcing vision and commitments. We performed an overall analysis of both past and ongoing traceability processes across our business lines and geographies, and made further investments to facilitate product tracking, from enhancements to first-mile logistic tracking systems and warehouse management systems, to linking logistic flows to commercial purchase and sales contracts.

In origination markets, we extended information captured in our systems from our suppliers to cover more sustainability data fields, conducting risk assessments of sourcing areas to different levels and granularities. These efforts contributed to a more solid traceability baseline, with an increasing proportion of products traceable back to farms.

In destination markets, we worked to capture logistic flows and product journey data linked to contract deliveries, in order to provide transparency further downstream. In collaboration with our clients and their customers, we launched several proofs of concept and pilots for product tracing and data sharing, working together toward increasingly transparent supply chains, from end to end.

Improved traceability at origins enables us to use sustainability criteria to drive informed commercial decisions. Although not fully automated, our commercial teams can include sustainability elements in the trade status of a counterparty, with corresponding alerts to relevant internal teams, should additional verifications be needed prior to signing a contract.

Looking Forward

In 2023 and beyond, we will continue to enhance LDC's traceability baseline at origins, as we work toward our [deforestation and conversion-free goal by the end of 2025](#).

We are also establishing a cross-platform traceability service within the company, with the goal of building up end-to-end product tracking capabilities across up- and downstream activities, and improving traceability data quality and integrity in our source systems.

We will expand traceability coverage to different types of supply chain models, including identity-preserved, segregated, mass balance and conventional (no certification associated).

Finally, as part of our longer term goals, we will continue to engage and collaborate with both suppliers and customers to build up a clear and detailed record of every product journey, from farm to fork.



Finance & Treasury

Environmental, social and governance (ESG) considerations are key to many of LDC's investment decisions and funding strategies. As we continue to embed sustainability in our financing model, signing credit lines with pricing mechanisms linked to ESG performance, we invest in sustainable agri-economic activities and projects.

Aligning With Environmental Targets

A portion of LDC's funding needs are financed through regional syndicated Revolving Credit Facilities (RCFs), each with a sustainability-linked pricing mechanism that connects the RCF interest rate with LDC's performance against annual targets related to environmental key performance indicators (KPIs): CO₂ emissions, electricity and energy consumption, water usage and solid waste generation.

In September 2022, LDC also raised a JPY10 billion sustainability-linked private placement with a Japanese investor, including a sustainability-linked pricing mechanism whereby the interest rate is linked to performance against the same environmental KPIs.

Boost for Juice Sustainability

In July 2022, LDC signed a sustainability-linked, 10-year US\$40 million term loan facility with *Proparco*, a subsidiary of *Agence Française de Développement Group* that focuses on private sector development.

A significant share of the funds has been allocated to the capital expenditure needs of LDC's Juice business for climate change impact mitigation and sustainable development projects.

This is our first loan facility to include both environmental and social KPIs, with the latter linked to LDC's efforts to help citrus fruit suppliers attain *SAI Platform* silver or gold grade verification, with a target to increase volumes sourced from suppliers applying verified sustainable farming practices.

Supporting Zero Deforestation Goals

LDC's long-term investment in sustainability projects and ESG commitments have increased support from partners and investors such as the *World Bank Group's International Finance Corporation* (IFC).

In September 2022, we closed a US\$275 million loan with IFC and a syndicate of international banks, the requirements of which align with LDC's commitment to eliminate deforestation and conversion of native vegetation for agricultural purposes from all our supply lines by the end of 2025.

The proceeds of this facility will exclusively finance soy or corn purchases from Brazilian farms that comply with both LDC and IFC's rigorous ESG requirements, and can demonstrate zero deforestation and conversion of native vegetation.

Business Ethics & Compliance

LDC is highly proactive in ensuring that employees and partners alike understand there is only one way to conduct business: ethically.

Our commitments to business ethics and compliance are formalized in our **Code of Conduct**, complemented by several, more specific policies pertaining to agents, gifts & entertainment, anti-money laundering (AML) and regulatory compliance.

Communication & Training

All LDC employees are required to perform an annual Code of Conduct e-learning that was developed internally to align with the Group's compliance profile, including modules dedicated to anti-corruption, AML and sanctions that are continually revised and updated. All agents and brokers we work with are also required to abide by LDC's Code of Conduct.

All compliance policies are available through LDC's internal compliance site, which is widely used by employees, with over 33,000 visits from more than 2,300 unique users in 2022. We also organize regular in-person training, with 25 such sessions run in 2022 across our geographies.

Our multifaceted and **three-pronged compliance and ethics program** is tailored to our diverse and complex global trade flows and operations, allowing compliance officers to oversee its principles and ensure employees are properly trained and aware of legislation affecting our business.

Looking Forward

In 2023, LDC is committed to further developing its compliance program through additional e-learning, increased resources, enhanced coverage of higher risk areas, further automation and continuous monitoring, as well as continued alignment with the Group's strategy and risk profile.

Data Security & Privacy

At LDC, we want our stakeholders to feel confident about the privacy and security of personal data held by the Group. Against a global rise in increasing sophisticated cyberattacks, LDC continually reinforces its data privacy and cybersecurity strategy to mitigate cyber threats and ensure comprehensive protection of our facilities and IT systems.

Staying Vigilant & Secure

Although we were not impacted by any major cyber event in 2022, this has not deterred efforts to fortify our **data privacy and security** measures. We have successfully implemented an advanced cybersecurity suite that incorporates best-in-class security and compliance capabilities, and which has significantly enhanced the protection of our systems from potential threats.

Moreover, we have reinforced and extended the coverage of our 24/7 security operations, which monitor information systems for cyber events. We remained focus on cultivating a culture that emphasizes the importance of cybersecurity hygiene among employees, via trainings and monthly phishing simulations.

Adhering to Industry Benchmarks

The US **National Institute of Standards and Technology** (NIST) has developed a cybersecurity framework that encompasses five key categories aiming to bolster cybersecurity risk management for businesses of all sizes.

In 2022, we undertook a comprehensive update of our cybersecurity policies, aligning them with the NIST framework categories and their objectives, which are integral to our operations:

- **Identify:** Cultivate an organizational understanding to risk on system, data and process.
- **Protect:** Implement safeguards to protect infrastructure and data.

- **Detect:** Establish activities for timely identification of cybersecurity events.
- **Respond:** Formulate actions to address detected cybersecurity incidents.
- **Recover:** Maintain resilience strategies and restore process.

By diligently implementing measures aligned with these categories, LDC continues to strive for the highest levels of data security and privacy, adapting to a continually evolving cybersecurity landscape.

Responsible Business

Our highly committed teams work continually to drive sustainable practices within their respective activities and value chains, leveraging LDC's leadership position to promote alignment with best practices and adoption of our policies and standards, toward increasingly fair, transparent and sustainable food and agricultural production.

Coffee

As one of the world's leading coffee merchants, recognizing that responsible sourcing can benefit all coffee value chain stakeholders, help safeguard ecosystems and mitigate the effects of climate change, sustainability is central to our business model and decisions.



This is why in 2022, the Coffee Platform developed and launched LDC's **Responsible Sourcing Program**, supporting our goal to trace at least 20% of our coffee volumes to farm through suppliers who signed our **Global Coffee Supplier Code of Conduct**, while we pursue our important groundwork related to responsible sourcing and sustainability projects in origination countries.

Empowering Farming Communities

In 2022, LDC implemented 12 projects with social targets, reaching more than 26,000 beneficiaries overall. Activities ranged from training women to use more fuel-efficient stoves, to youth education in coffee growing communities.

As part of our commitment to act for living income improvements, LDC also formally joined the **ICO Coffee Public-Private Task Force**, signed the **London Declaration** on price levels, price volatility and the long-term sustainability of the coffee sector, and is supporting the **Living Income Benchmark Accelerator Project**.

Importantly, LDC also launched the **Stronger Coffee Initiative** in 2022, with the goal to work alongside other coffee supply chain stakeholders to empower farming communities to succeed and thrive.

Guided by a vision for a world where *'every cup of coffee improves lives and the planet'*, the initiative takes a holistic approach organized across three complementary pillars: farmer prosperity, low carbon and regenerative agriculture.

This approach will guide our work over the coming years, working toward the various goals outlined below leading up to 2027, with an ambition to support 30,000 coffee farmers to become more prosperous through this initiative.

Protecting the Environment

In 2022, working alongside various partners, LDC implemented 12 projects with environmental targets, with activities that included the renovation of coffee farms (distributing 245,000 seedlings in 2022) and the training of thousands of farmers on low-carbon agriculture.

LDC also started a baselining exercise to collect primary data on Scope 3 greenhouse gas emissions in selected supply chains, using the **Cool Farm Tool**. This exercise will be completed in 2023 and give a clearer picture of emissions in LDC's coffee supply chains.

Also working pre-competitively on this topic, LDC participated in the **Green Invest Asia** project launched by Nestlé, JDE Peet's and USAID, to establish a carbon footprint for two key global Robusta origins in Vietnam and Indonesia, as part of an unprecedented collaboration between the world's two largest coffee buyers and ten of their supply chain partners.

Traceability in Focus

Although our Coffee Platform benefits from having its own sourcing networks, mills, warehouses and export operations, complete traceability relies on data that resides in many different systems.

Recognizing the importance of traceability, in 2022 we invested to develop a consolidated data lake that will ultimately allow us to provide customers and suppliers with accurate and more timely traceability information about coffee deliveries.

Case Study

Indonesian Coffee Farmers

In 2022, LDC conducted a study with Indonesian coffee farmers, designed in conjunction with **PUR**, a global player in Nature Based Solution projects, and **Migunani**, a non-profit research organization based in Indonesia.



The study assessed the impact of good agricultural practices (GAPs) and agroforestry on soil health and coffee farmer productivity and incomes, and explored the key drivers for coffee farmers' decisions on whether or not to adopt GAPs.

The study concluded that although the introduction of GAPs and agroforestry was successful relative to control groups, more action is needed to support and encourage coffee farmers, including more extensive promotion of GAPs and market-level assistance to give farmers access to the necessary funds to apply GAPs.

The study also recommended intensive assistance to farmers with regard to soil amendments that improve nutrient availability and retention, including fertilizers, and supplying additional anti-erosion measures for coffee plots on slopes above 15%.

Targets

Develop and launch LDC Responsibly Sourced Verified program



Completion: 2022
Status: Complete

70% of all coffee sourced from suppliers who have signed LDC's Code of Conduct



Completion: 2025
Status: Complete

20% of coffee supplied by signatories of LDC's Code of Conduct, with traceability to farm



Completion: 2025
Status: Complete

New Targets

Complete farm-level Scope 3 emissions baselining exercise for selected certified coffee supply chains



Completion: 2023

Source at least 80% of coffee from RSP-approved supply chains



Completion: 2027

Support 30,000 farmers globally to improve and diversify their income chains



Completion: 2027

Support the production of 180,000 MT of third party-verified, low-carbon coffee



Completion: 2027

Plant at least 1.2 million shade trees globally in coffee agroforestry systems



Completion: 2027

Launch regenerative agriculture and soil restoration across 100,000 ha of coffee farmland



Completion: 2027

Use 99% electricity from renewable sources to power LDC's coffee assets



Completion: 2027

Reduce scope 1 & 2 emissions by 33.6%



Completion: 2030

Cotton

At LDC, we are committed to helping empower smallholder cotton farming communities for greater resilience and a more sustainable future, working with a range of partners to improve supply chain practices, and promoting the purchase of sustainably produced cotton.

LDC and Better Cotton

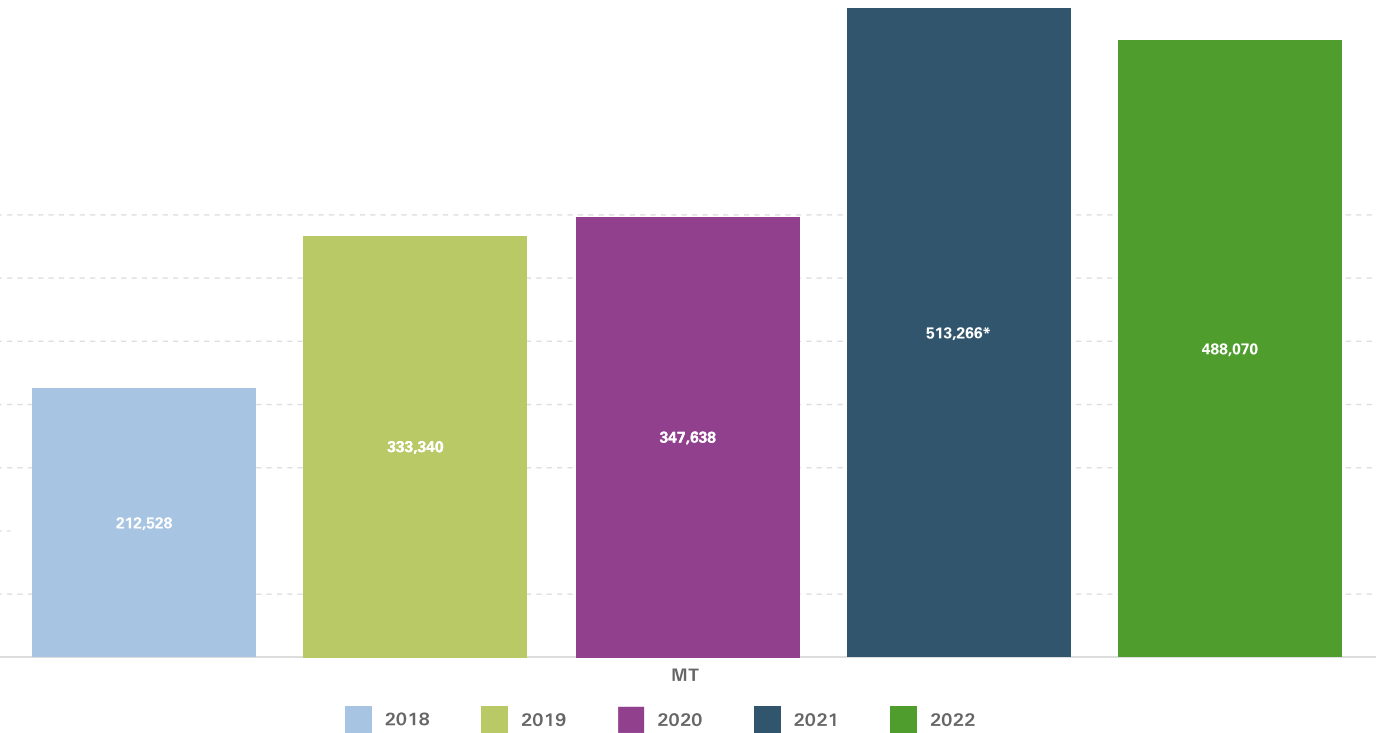
As the world’s leading sustainability initiative for cotton, LDC has consistently promoted *Better Cotton’s* comprehensive sustainability standards in our cotton supply chains and prioritized *Better Cotton* purchases.

In 2022, we strengthened our ties with the organization by taking a seat on the *Better Cotton Council*, an elected board that drives cotton toward a sustainable future.

As one of 12 Council members, we are proud to contribute to shaping global strategy to help cotton communities survive and thrive, while protecting and restoring the environment.

We also work in the field to empower smallholder cotton farmers around the world, through projects offering training in good agricultural practices.

Purchases of Better Cotton 2018-2022 (MT)



* Figure restated to include an additional 603 MT sourced from South Africa, not reflected in our 2021 Sustainability Report.

Case Studies

Project Jagruthi, India

In 2022, we launched Project Jagruthi to train and support Indian cotton farmers in adopting more sustainable farming practices.

The project was initiated in response to a pink bollworm outbreak in late 2021 that resulted in significant yield losses for many farmers, largely due to limited knowledge of pink bollworm management.

As part of the initiative, LDC conducted a series of educational workshops to train cotton farmers on how to mitigate threats such as pink bollworm and white fly infestations, which affect cotton crops in India. Specific methods were demonstrated alongside technical advice from experts to minimize yield losses due to pest outbreaks, helping to increase production and ultimately incomes.

By the end of 2022, the project had trained more than 7,500 farmers in scientific and technical pest control methods, and equipped them with over 40,000 pheromone traps.



Project CAR-iSma, Zambia

In Zambia, LDC is working alongside organizations such as *Aid by Trade Foundation* and Deutsche Gesellschaft für Internationale Zusammenarbeit (or *GIZ*) on the Climate Adaptation and Resilience through Improved Soil Management (CAR-iSma) project, which started in 2022 and will run until the end of 2024.

Project CAR-iSma aims to help improve soils depleted over the years by suboptimal farming practices, in particular by helping farmers to reduce their reliance on inorganic fertilizers such as D-compound and urea, advocating composting instead.

Other good agricultural practices being promoted through the project include:

- Integrated Production and Pest Management (IPPM), encouraging farmers to apply inorganic pesticides only when the economic pest threshold is established, thus reducing use of chemicals.
- Use of insect traps before bollworm moths lay eggs – a pre-emptive action that ensures fewer chemicals are needed to manage bollworm larvae.

- Crop rotation, which not only helps improve soil health but also generates extra income for farmers from crop diversification.
- Use of environmentally friendly bio-pesticides, encouraging farmers to avoid inorganic pesticides by using readily available plants and other materials.

Over the course of 2022, the project supported approximately 30,000 smallholder cotton farmers (31% of them women) and is well on track to meet its target: to support 60,000 smallholders by the end of 2024.



Looking Ahead

In 2023, LDC has ambitious targets to build climate smart, regenerative and traceable cotton supply chains, in order to capture and deliver value both up- and downstream, including to farming communities whose production we all rely on.

In particular, our actions will focus on innovation to reduce greenhouse gas emissions at farm level and develop digital chains of custody downstream. To maximize impacts, we believe we must innovate and de-risk this innovation for our customers, ultimately contributing to more efficient, lower carbon supply chains.

Targets

Take individual membership of the ILO's Child Labour Platform



Completion: 2022
Status: Complete

Purchase 50% more Better Cotton than in 2018



Completion: 2023
Status: Complete*

Increase Better Cotton purchased over previous year by 10%




Completion: 2020 -2023
Status: Missed for 2022

*Ahead of time


New & Amended Targets

Initiate a digital chain of custody pilot in Brazil, India & US




Completion: 2023

Initiate climate smart cotton pilots in India & US



Completion: 2023

Extend Project Jagruthi in India to reach at least 12,000 farmers

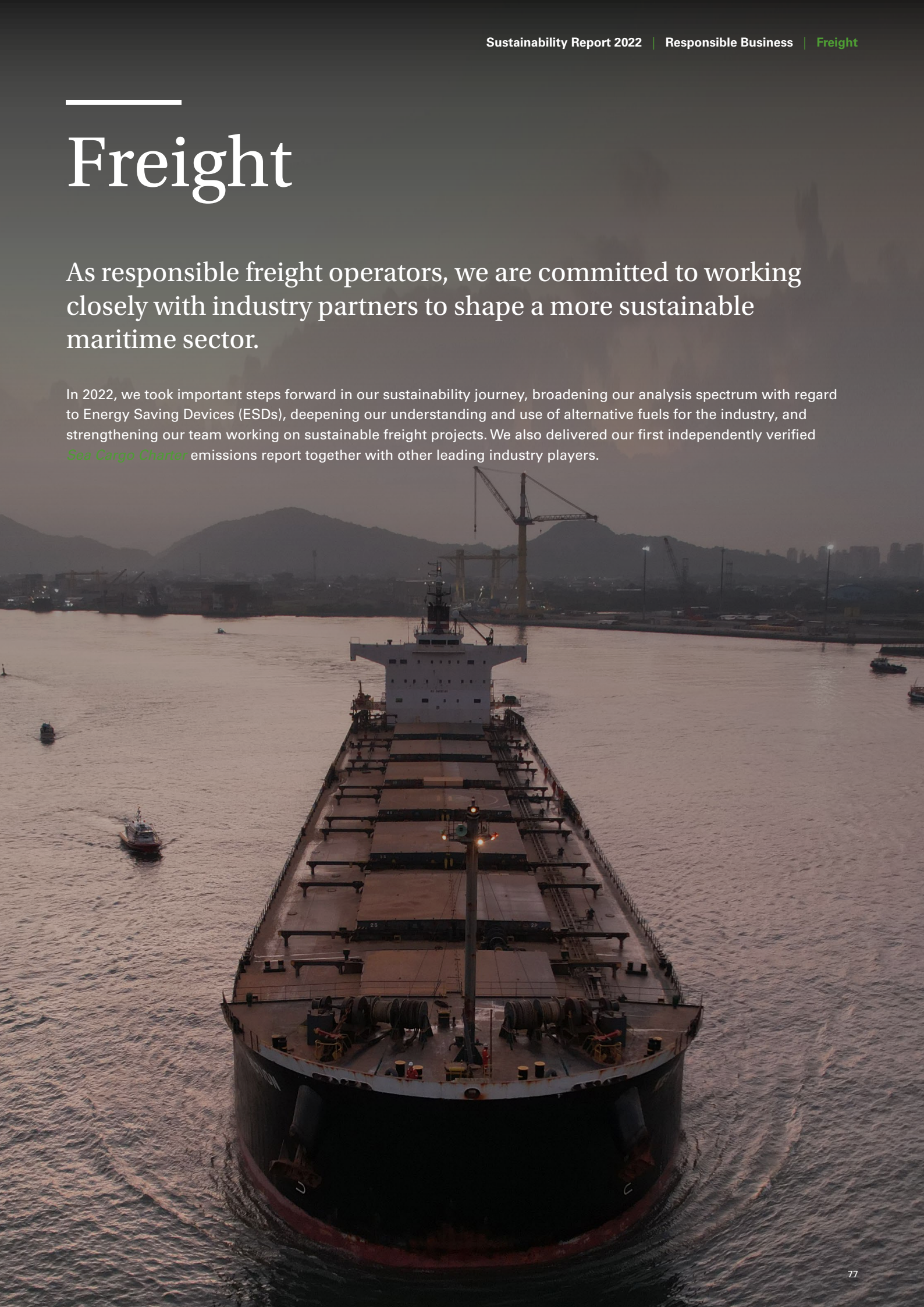


Completion: 2022

Freight

As responsible freight operators, we are committed to working closely with industry partners to shape a more sustainable maritime sector.

In 2022, we took important steps forward in our sustainability journey, broadening our analysis spectrum with regard to Energy Saving Devices (ESDs), deepening our understanding and use of alternative fuels for the industry, and strengthening our team working on sustainable freight projects. We also delivered our first independently verified *Sea Cargo Charter* emissions report together with other leading industry players.



Working With Shipowners

New regulations pertaining to how vessels are built and used are also coming into play.

From January 1, 2023, *International Maritime Organization* (IMO) Energy Efficiency Existing Ship regulation applies, imposing a certain level of energy efficiency to the design of every vessel on the water. The Carbon Intensity Indicator (CII) regulation has also been implemented, which means that by April 2024, and using data collected throughout 2023, each vessel will receive a rating (A to E) of their Operational Efficiency.

These two measures will help set the industry on the right decarbonization path and facilitate the uptake of carbon footprint reduction solutions.

Throughout 2022, we worked closely with shipowners in order to help them prepare for compliance with these new regulations. Ensuring our operating profile does not negatively impact fleet efficiency and proactively working alongside shipowners to find new ways to improve our fleet efficiency, LDC has followed collaboration avenues including co-investing in innovative ESDs on our vessels, implementing digital tools within our team, sharing knowledge and analytics on efficiency at sea, and experimenting with alternatives to standard marine fossil fuels.

For example, we partnered with shipowners on a study exploring the possibility to retrofit a wake equalizer duct on a vessel during drydocking, with the goal to improve ship energy efficiency by 3-5%.

Embracing Innovation

At LDC, we see innovation as key to accelerating shipping industry decarbonization.

In 2022, we carried out two successful biofuel trials – one with our Juice fleet in the Atlantic, another for a third-party client in the Pacific.

We also expanded our comparative study of wind-assisted propulsion, adding a fifth new wind-assisted technology to explore, alongside the four we already studied.

Hull smoothness is a key efficiency driver in marine freight, with the potential to reduce energy consumption and CO₂ emissions by as much as 3-8%. Yet traditional paints use biocide chemicals to prevent marine growth on the hull, which have been criticized as harmful to the environment. Accordingly, we partnered with Lloyds Register to launch a hull paint comparative study with the goal to discover a paint that delivers maximum performance with minimal ecological drawbacks.

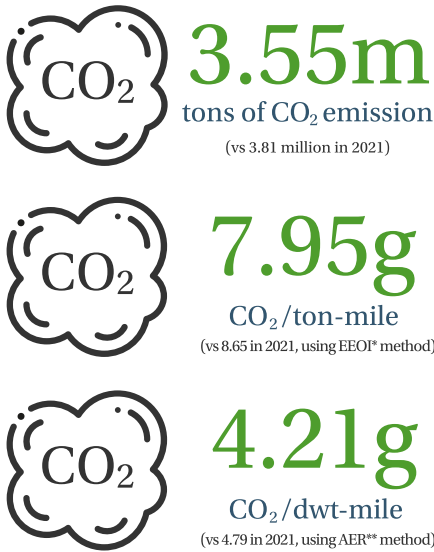
We also continued to investigate different digital solutions to optimize the efficiency of our fleet at sea. Based on daily data collection and onboard sensors, these solutions monitor vessel hull performance, routing adjusted for weather events at sea, day-to-day chartering of the most efficient vessels, and more.

Investing in the Future

Investment in new talent is also essential for the sustainability of any organization. In 2022, we reinforced expertise and capacity in our operations and laytime team, including through the launch of a Freight Operations Graduate Program, and also doubled the team dedicated to investigating, piloting and driving adoption of innovative solutions toward more efficient and, ultimately, sustainable freight operations.

Sea Cargo Charter Report

The initial results from our first independently verified *Sea Cargo Charter* emissions report allowed us to clearly identify improvement areas in our operations. The report provided a transparent baseline to measure our year-on-year progress going forward, while underlining LDC’s intent to help improve global shipping industry transparency.




*Energy Efficiency Operational Index: the amount of CO₂ emitted by the ship per ton-mile of work. It is the ratio of CO₂ emitted to the ton-mile (amount of cargo x nautical miles sailed).

**Annual Efficiency Ratio: the ratio of a ship's carbon emissions per actual capacity/ distance (deadweight tonnage/nautical miles sailed), using the parameters of fuel consumption, distance travelled and design deadweight tonnage.

These 2022 figures show a decrease in CO₂ emissions and an improvement in fleet efficiency, due mostly to market externalities, including a decrease in waiting times at port and a decrease in the world’s average fleet speed.

Targets

Reduce our fleet emissions per ton-mile by 15%, compared to 2017



Completion: 2022
Status: Missed

*Due mainly to exogenous factors impacting fleet efficiency over the period last 5 years (including port congestion), despite increased control over vessel selection and performance, and investments in efficiency measures, the results of which will be reflected in energy efficiency indicators over the coming years.

Juice

Sustainability being a cornerstone of our juice business model, in 2022 we continued to promote the adoption of sustainable production practices throughout the citrus juice value chain, harnessing innovation, maintaining sustainability certifications at our farms and processing plants, and strengthening ties with certifying organizations.

Sustainable Production

At LDC, we believe that sustainable production practices are not only good for the environment, they are also good for business. Despite severely adverse weather conditions and ongoing supply chain challenges in 2022, the systematic implementation of sector best practice in irrigation, pollination, farm management, satellite imaging and agricultural treatments led processed fruit volumes to increase by approximately 20% year on year.

At our juice processing facility in Bebedouro, São Paulo State, Brazil, we invested over US\$2,200,000 in a wastewater treatment plant.

Shared Knowledge for Sustainability

We also continued to share our expert knowledge with third party fruit suppliers through *Programa Compartilhar* – our knowledge-sharing program that has brought together fruit suppliers from various Brazilian states (São Paulo, Minas Gerais and Paraná) since 2015 to discuss a wide range of subjects for sustainable agricultural best practice: traceability, new technologies, biological control and others.

In 2022, three program sessions covered sustainable management of leprosis in citrus, pest control and the ProteCitrus list, as well as LDC's sustainability commitments and standards. More than 100 people (representing over 80% of our citrus fruit volumes sourced from third party suppliers) participated in the meetings, helping to strengthen sustainable production in the region and reinforcing LDC's ties with suppliers.

Conserving Biodiversity

We know that the long-term success of our business depends on the responsible use of natural resources. Aware of our responsibility to help shape a sustainable future, we seek to reduce the environmental impacts of our operations and act to preserve biodiversity.

We have implemented Biodiversity Protection and Conservation Plans for LDC-managed citrus farms in Brazil, with emphasis on planting native seedlings in protected areas.

Our main reforestation strategy focused on nucleation methodology, which relies on planting 'islands' of vegetation as focal areas of recovery, composed of species with the ecological capacity to significantly improve the environment and facilitate occupation of the area by other species.



Case Study

Together for the Environment

Our ‘Juntos Pelo Meio Ambiente’ (*Together for the Environment*) program began in 2012, working with primary school children from local communities living near LDC-managed citrus farms.

The project seeks to encourage a conservationist mindset and respect for natural and cultural resources among participating children, by raising their awareness of topics such as:

- The preservation of fauna and flora
- Sustainable agricultural production
- The importance and purpose of the ecological balance of natural ecosystems.

In 2022, for the first time, the program was run at all LDC-managed farms, where the children learned about waste recycling and agricultural activities, toured the farms and helped plant native seedlings, among other activities.

Sustainable Finance

In July 2022 LDC signed a **sustainability-linked, 10-year US\$40 million term loan facility** with *Société de Promotion et de Participation pour la Coopération Economique*, linking our financing model with our efforts to create fair and sustainable value across our activities and value chains, covering both.

This was the Group’s first loan facility to include both environmental and social commitments.

Certification Highlights

We maintained our high level of certification across LDC-managed citrus farms and juice processing facilities in 2022.

All 38 farms remain verified to *Sustainable Agriculture Initiative Platform* standards, 37 to gold level and one to silver level.

Thirty-two of our farms are also **Rainforest Alliance Certified™**, as are our industrial facilities in São Paulo State, Brazil (Matão, Bebedouro, Santos) and Ghent, Belgium, and our facility in Paranavaí, Paraná State, Brazil, is certified by *Fairtrade*, a leader in the global movement to make fair trade.

Case Study

Certification Supporting Communities

In 2022, our Juice team registered the commercialization of 100% segregated *Fairtrade* juice for the first time. The orange juice certified under the *Fairtrade* seal comes from fruit supplied by *Coopsoli*, an association of 38 citrus growers, where premium payment is guaranteed for certified fruit – value that aims to generate investments in social, economic or environmental projects in surrounding communities. Here are three example community projects developed by *Coopsoli*.

Besides the Juice

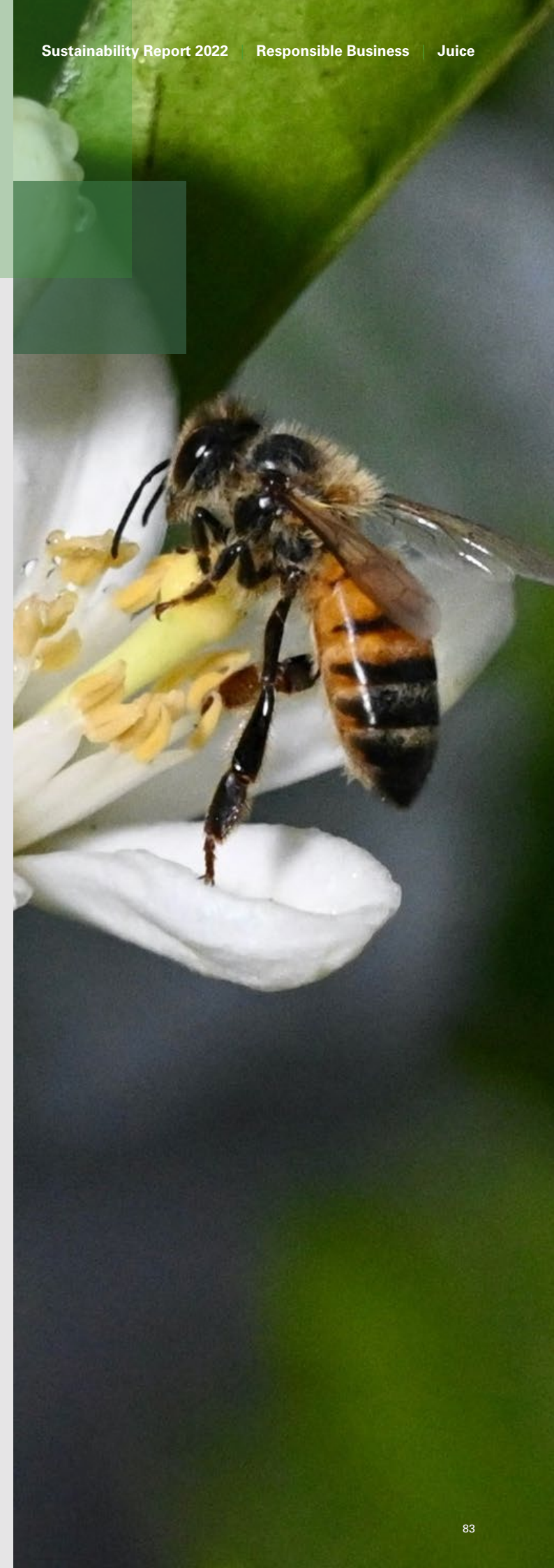
This project aims to empower women (either cooperative members or members of their families) to set up a small business and so diversify the family income. To this end, training was provided on how to produce and market ornamental plants.

Conscious Flowering

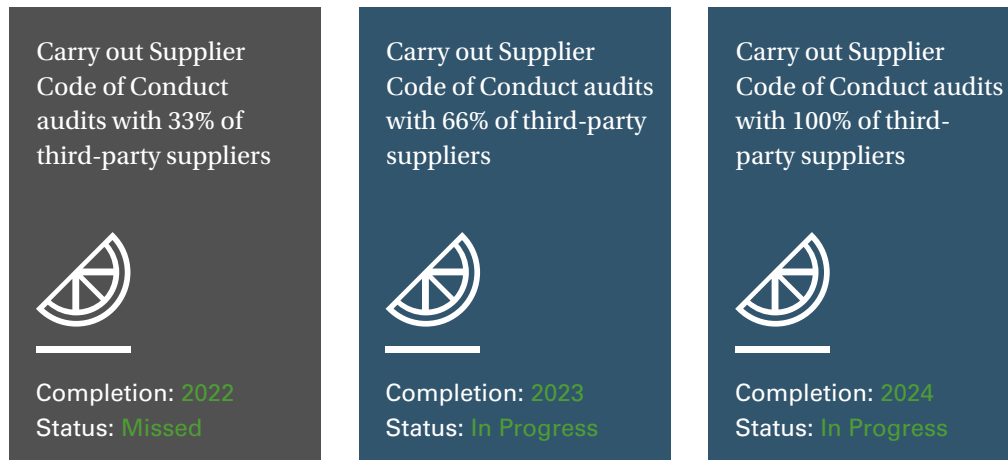
The cooperative developed a partnership with regional beekeepers to install beehives in the orange orchards during the blossom season. The project includes training for citrus growers who are interested in having their own hives and producing orange honey, a high-value product for the local market. Besides the environmental benefits gained from the reintroduction of bees into their natural habitat, the project also incentivized the use of biological products that are not harmful to bees for pest management.

Fertile Soil

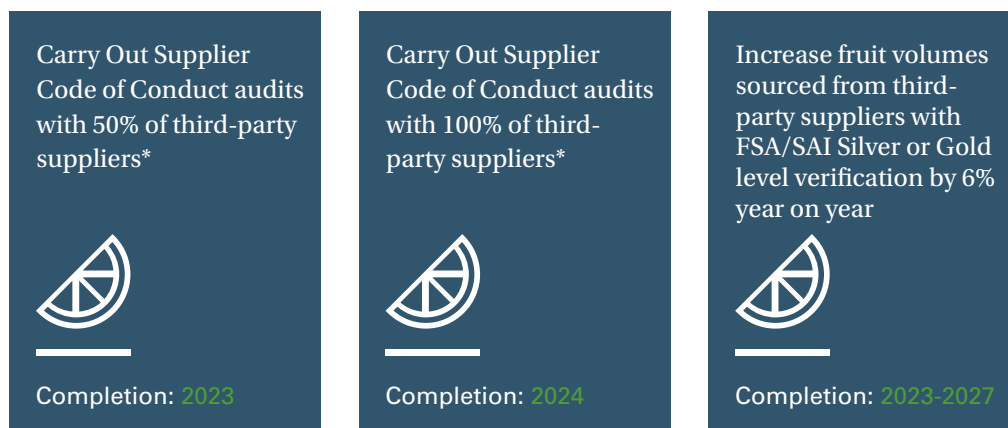
Soil analyses were carried out to identify the nutritional needs of the soil in the plots of each of the cooperative’s members. This information provided accurate guidance about the inputs necessary to maximize the soil’s fertility while minimizing any potential negative impact – so increasing the productivity and improving the profitability of the cooperative members.



Targets



New Targets



* The 2023 and 2024 targets are cumulative: 50% in 2023, plus 50% in 2024.

* The 2023 and 2024 targets are cumulative: 50% in 2023, plus 50% in 2024.

Palm

We believe that responsibly produced palm oil can support millions of farmer livelihoods, while preserving sensitive ecosystems and forests. That's why we work continually with committed industry partners to improve environmental and social practices in our supply chains, seeking solutions that protect the environment we all depend on while creating fair and sustainable value for all stakeholders.



Momentum on Traceability & Certification

Achieving traceability to origin is a top priority, as the basis for understanding the situation in the field, monitoring supply chain practices and taking action to drive more sustainable production.

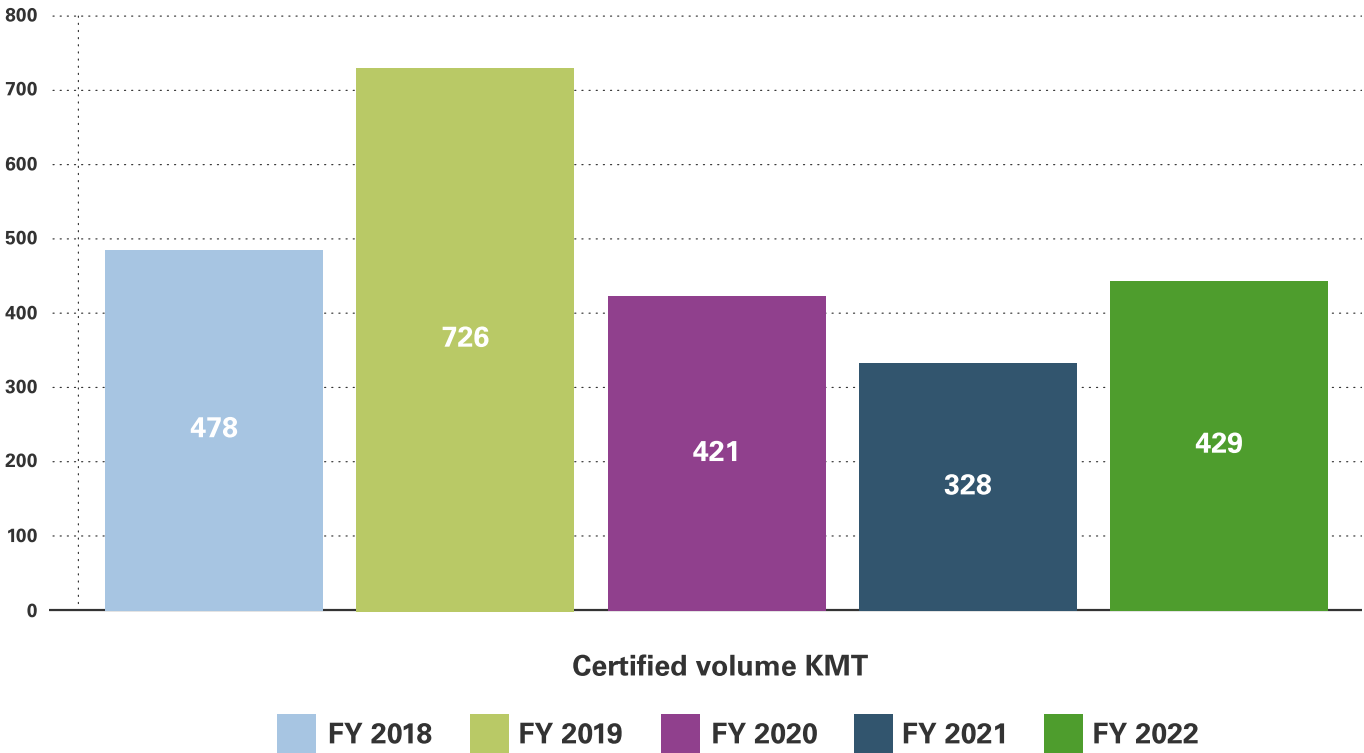
Thanks to great collaboration with our suppliers, we maintained our strong traceability performance in 2022, reaching 98% traceability to mill level for global volumes, up from 97% in 2021.

We also improved traceability to plantation level for directly-sourced volumes for our two Indonesia refineries to 95%, from 90% in 2021. This brought our global volume's traceability to plantation from 72% in 2021 to 77% in 2022.

As part of efforts to deliver on our NDPE commitment, we continually strive to source palm oil that complies with *Roundtable on Sustainable Palm Oil* (RSPO) and *International Sustainability & Carbon Certification* (ISCC) standards.

In 2022, our certified palm oil sales declined, largely due to Covid-related impacts on demand for energy, a trend we expect to reverse as the effects of the pandemic ease.

ISCC and RSPO Certified Volumes (KMT)



Protecting Forests, Native Vegetation & Peatlands

In 2022, we rolled out our No Deforestation, No Peat, No Exploitation (NDPE) Policy Compliance Verification Protocol with direct suppliers to our Indonesia refineries.

This protocol was designed to verify supplier compliance with LDC's *Palm Sustainability Policy* and identify possible gaps, as a basis for continuous improvement. It includes a combination of desktop and onsite assessments of each supplier's overall environmental and social risk exposure. Following the assessments, we co-develop improvement plans and closely follow process steps with the supplier.

Our goal is to complete the assessment and improvement process for all direct suppliers in the high-risk category by the end of 2023.

At the same time, we leverage the *NDPE Implementation Reporting Framework (IRF)* to measure overall supply chain performance toward LDC's zero deforestation and peat targets.

Pending verification in 2023 of the IRF profiles of our two Indonesia refineries, throughout 2022 we actively promoted the IRF tool and encouraged reporting among our suppliers, with the objective to improve transparency of deforestation risk management at sectoral level.

Working with *Global Forest Watch* and *Earthqualizer*, we now harness data intelligence powered by satellites to monitor our global palm supply chain for possible deforestation and peat development. Biweekly land-use change alerts allow us to take quick action with suppliers, when required, to validate and resolve non-compliant incidents. Our latest grievance log is accessible [via LDC's website](#).

Global Collaboration

Empowering Suppliers

In 2022, we advanced capacity building for suppliers on NDPE implementation, a key pillar of our sustainability strategy.

A two-day workshop delivered to our supplying mills in Indonesia included deep dives into topics such as traceability to plantation, human and labor rights and satellite monitoring.

In Latin America, we conducted a first regional webinar to share updates with suppliers on the latest market trends and legislation, carbon accounting and decarbonization.

Following the supplier training workshops, we have been following up with individual suppliers to provide ongoing technical support and formulate improvement action plans to address possible gaps with NDPE compliance requirements.

Partnerships for Progress

Since 2021, LDC has been a member of the *Palm Oil Collaboration Group* that brings together companies across the palm oil value chain to accelerate effective implementation of NDPE commitments and tackle common sustainability priorities.

Focus areas for this multi-stakeholder group in 2022 were to develop social IRF methodology and collectively engage with key stakeholders to tackle deforestation beyond corporate concessions. LDC is also an active

contributor to the newly created Latin America subgroup that brings together regional stakeholders to co-create collective solutions to local sustainability priorities.

In May 2022, we signed *Colombia's Zero Deforestation Agreement*, a multi-stakeholder initiative to eliminate deforestation for palm oil production in the country, and an opportunity for collaboration with peers and value chain stakeholders toward more sustainable production.

Human & Labor Rights

Upholding human and labor rights is an integral part of our supply chain due diligence, and our NDPE Compliance Verification Protocol covers subjects such as child labor, forced labor, fair labor practices, work conditions, health & safety, and community and indigenous rights.

In 2022, we applied this protocol to three mills that supply our Indonesia refineries, with the plan to roll it out to all mills with high-risk exposure by the end of 2023.

We also initiated a third-party assessment of the human rights due diligence system of LDC's Balikpapan refinery, due to be completed by early 2023.

Based on the *United Nations Guiding Principles on Business and Human Rights*, this assessment will provide insights into our current practices and possible improvement areas, ahead of our plan to pilot our due diligence system in selected supplying mills in 2023.

Case Studies

Sustainable Palm Smallholder Project, Indonesia

In 2022, 1,015 farmers participating in our palm smallholder project received refresher training on good production practices, improving their productivity by 12% and income by 122% (compared to 2019 baseline levels).

One group of 51 farmers successfully completed the internal audit followed by the RSPO audit, qualifying for RSPO Eligibility certification, which allows them to sell 40% of their production as certified sustainable.

A second group of 239 farmers who were certified in 2020, received additional technical training and successfully passed the RSPO Milestone A certification, which allows them to sell 70% of their production as certified sustainable.

Rural Business Incubator, Côte d'Ivoire

In collaboration with the *Louis Dreyfus Foundation*, we continued our project to create a Rural Business Incubator in Côte d'Ivoire, providing training on regenerative agriculture and income diversification for local palm smallholder producers, aiming to help them increase and diversify their agricultural production sustainably.

The first cohort of 26 trainees have completed the training in 2022, with 200 farmers expected to be trained by 2024.



Targets

Initiate support for one landscape project in our key supply base



Completion: 2022
Status: Missed and postponed to 2023*

Near 100% traceability to mill level for palm traded by LDC



Completion: 2022
Status: Complete

100% traceability to mill level for palm sourced directly to LDC refineries



Completion: 2022
Status: Complete

95% traceability to plantation level for palm sourced directly to LDC refineries



Completion: 2022
Status: Complete

90% volumes sourced from verifiably responsible suppliers*



Completion: 2022
Status: Complete

Train a further 1,000 South Sumatran palm smallholder farmers in GAPs



Completion: 2022
Status: Complete

100% indirect suppliers to complete LDC NDPE assessment



Completion: 2023
Status: In progress

100% direct suppliers categorized as high-risk to complete field verification of NDPE compliance and improvement plan



Completion: 2023
Status: In progress

*Scoping of potential landscape projects in our key supply base, and discussions with potential implementation partners, took longer than expected.

*From certified RSPO or ISCC volumes, or from suppliers who are contractually bound to comply with our palm sustainability policy, or from suppliers who have their own NDPE commitments of at least equal rigor to our policy.

New Targets

Maintain 100% traceability to mill level for palm sourced directly to LDC refineries



Completion: 2023

Maintain near 100% traceability to mill level for palm traded by LDC



Completion: 2023

100% traceability to plantation for direct suppliers to Indonesia refineries



Completion: 2025

Near 100% volumes for Indonesian refineries are in the “Delivering” category of the NDPE IRF



Completion: 2025

Soy

In 2022, we continued to optimize the systems and processes in place to ensure traceability and suppliers’ socio-environmental compliance with our Soy Sustainability Policy in all our sourcing regions, through active engagement and collaboration. We also increased the volume and diversification of our sustainable soy offering and certifications, while initiating programs to support farmers who implement sustainable production.

Toward Zero Deforestation & Conversion

In 2022, in consultation with key stakeholder advisors, we developed our methodology to verify deforestation- and conversion-free soy purchase volumes.

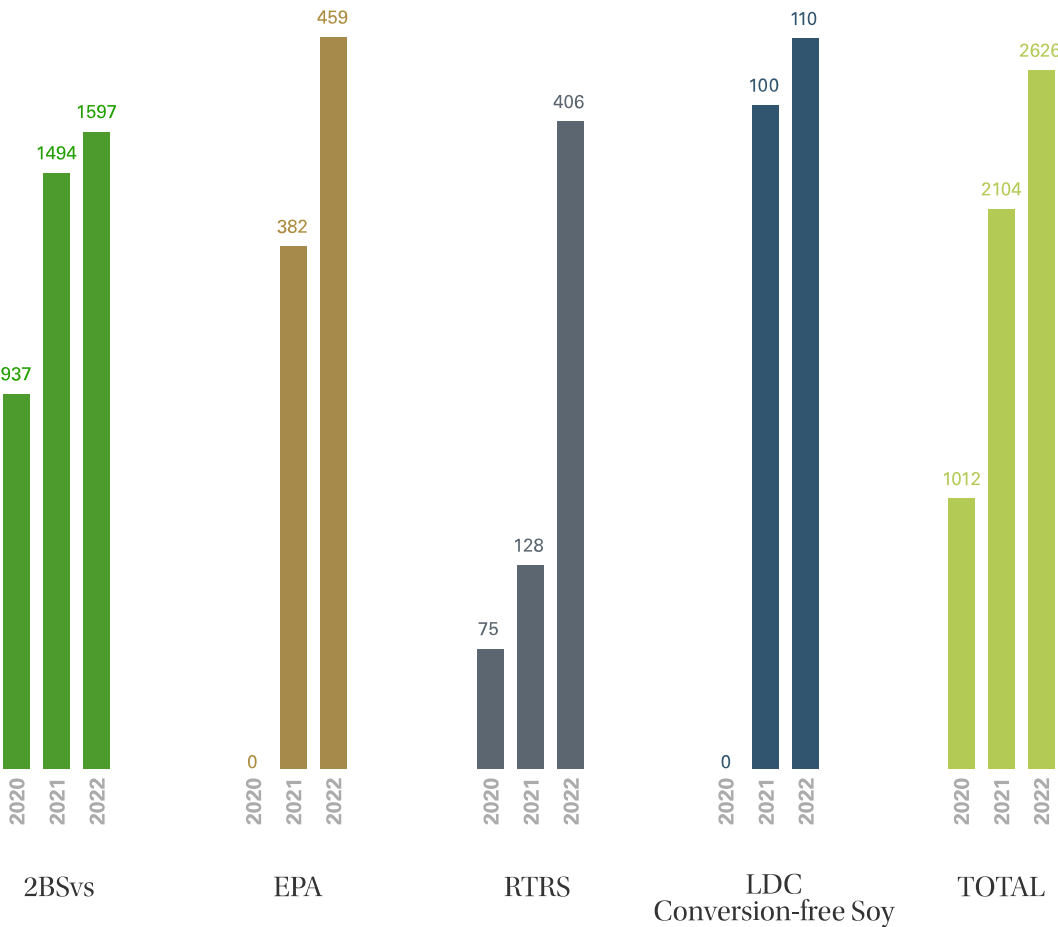
Based on this methodology, we completed deforestation risk assessments of our soy supply chains in Latin America, which helped establish a deforestation-free baseline and inform further due diligence planning.

We will continue to strengthen our supplier engagement and due diligence in identified deforestation high-risk regions, with particular focus on indirect suppliers, as we strive to reach our global deforestation- and conversion-free supply chain target by the end of 2025.

Sourcing Certified Sustainable Products in Latin America

LDC predominantly exports soybeans from Brazil, Argentina and Paraguay.

Seeking to meet customer demand for sustainable products, while generating a sustainability premium for farmers, we further reinforced our sustainability certification programs in the region by enlarging our group of certified farms in Brazil more than fivefold, increasing the number of chain-of-custody certified facilities across Latin America to 26 (up from 7), and significantly expanding volumes of soy sold under sustainability certification and verification standards.



2022 Sustainable Soy Sales (KT)

Spotlight on Brazil

In 2022, we further reinforced and optimized our socio-environmental checks during the purchasing process, equipping commercial teams with data and more integrated internal and external systems to carry out supplier checks efficiently and accurately, giving us a real-time view of Brazilian supplier compliance with the following minimum criteria:

- No deforestation after 2008 for farms in the Amazon biome, in accordance with the *Brazilian Soy Moratorium*, of which LDC has been a signatory since its inception in 2006;
- No embargo for deforestation from the *Brazilian Institute of the Environment and Renewable Natural Resources* (IBAMA);
- No overlap with indigenous land;
- No overlap with conservation units;
- No listing on *Brazil's Ministry of Labor and Welfare* 'dirty list'; and
- Compliance with the *Green Grain Protocol of Pará State*, which bans financing or sourcing of soy associated with illegal deforestation or forced labor.

Partnering for Pest Management

To support farmers working toward regenerative agriculture by offering them more sustainable solutions, we established a *partnership with Koppert* – a major producer of sustainable cultivation solutions for food crops – to commercialize biological inputs in Brazil.

Aiming to promote sustainable pest management in the country, we developed a joint strategy to encourage the use of biopesticides, with the ambition for these products to account for 8% of the total volume of pesticides commercialized in Brazil in 2027. In addition to the traditional sales model, we intend to operate with 'green barter', a financing mechanism through which biological inputs can be paid for after the harvest with grains.

Expanded Traceability

Thanks to close collaboration with our commercial team, we reached 84% traceability to farm level for direct sourcing from producers in Brazil, up from 81% in 2021.

Regarding indirect suppliers, we initiated a new engagement process by providing technical support for our partners to improve their supply chain traceability and due diligence process. This engagement process is due to conclude by 2023.

Farmer First Clusters Initiative

As a member of the *World Business Council for Sustainable Development's Soft Commodities Forum* (SCF), LDC works with sector peers to improve supply chain transparency and mitigate deforestation risk in priority landscapes of Brazil's Cerrado biome.

In November 2022, the SCF officially launched the *Farmer First Clusters Initiative* at *COP 27*, aiming to provide a combination of solutions to address soy-driven deforestation and conversion in four key Brazil Cerrado landscapes: Western Mato Grosso, Southern Maranhão, Western Bahia and Tocantins.

The initiative works through six solutions, clustered according to local realities:

- Payments for surplus legal reserve
- Technical assistance for sustainable production and forest code compliance
- Restoration of degraded areas
- Integrated farming (livestock, agriculture and forestry)
- Expansion of agriculture over pastureland
- Green finance

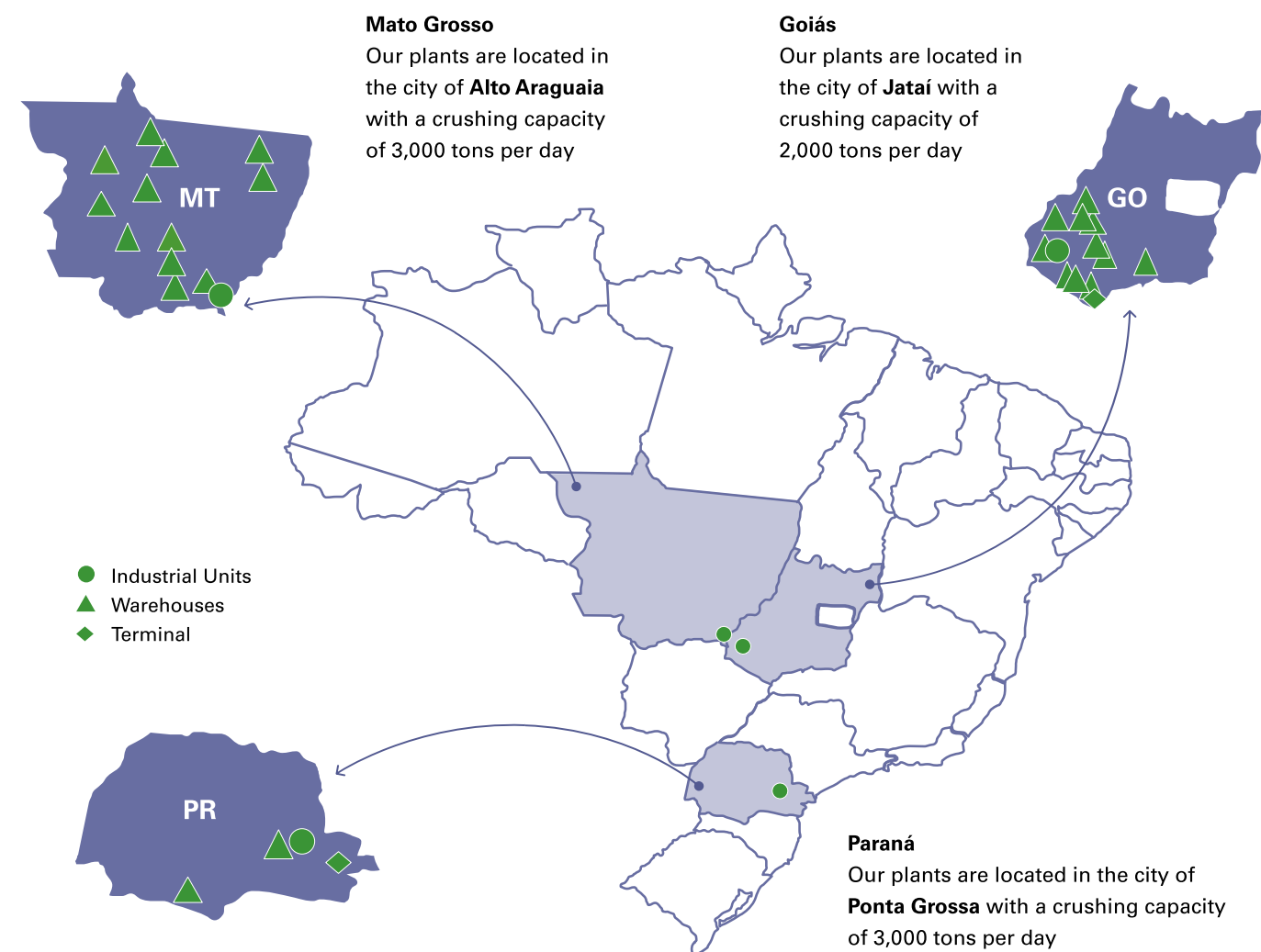
Commitment to Conservation

In 2022, we signed an agreement for a US\$200 million credit facility with the *International Finance Corporation* (IFC), to fund crop purchases from eligible Brazilian farmers committed to zero deforestation and conversion of natural habitats, with a cut-off date of 2016.

This investment will support the sourcing of an estimated 500,000 MT of soy or corn from pre-financed farmers who comply with LDC's responsible sourcing policy and [the sustainability criteria of this facility](#).

The soybean/corn production is expected to come from approximately 143,000 hectares of farms in Mato Grosso, Goiás and Minas Gerais states.

This loan aims to present a commercial premium for farmers who voluntarily conserve native vegetation on their properties beyond legal requirements, recognizing and rewarding their contribution to environmental conservation.



Spotlight on Argentina

During 2022, around 46% of soybean volumes sourced by LDC in Argentina held sustainability certifications such as *2BSvs*, *RTRS* and *US EPA Renewable Fuel Standard Program*. At our General Lagos agro-industrial complex specifically, 85% of soy processed in 2022 was certified as sourced from land not cleared after 2008, in accordance with *2BSvs* and *EPA* requirements – an 8% increase year on year, that advances our ambitions to exclusively process certified sustainable soy at the facility.

In 2022, we also laid the groundwork for a new farmer program in Argentina that aims to support sustainable soy production in line with LDC's FEFAC-benchmarked *Program for Sustainable Agriculture* standard. This farmer program will be fully implemented in 2023, offering technical support to enhance sustainable practices on farm level.

Sectoral Collaboration

LDC actively participates in *La Visión Sectorial del Gran Chaco Argentino* (ViSeC), a sectoral initiative that aims to promote and communicate science-based actions supporting sustainable soybean production in Argentina. The focus is on monitoring and controlling land-use change for agricultural purpose in the Gran Chaco biome, through a traceability and monitoring system along the production chain that collates monitoring and verification data on all soybeans marketed in Argentina, combining sustainability parameters and requirements relevant to the soybean market.

This initiative relies on the contribution and commitment of various stakeholder groups, including farmers, industrial companies and local communities, among others. It aims to generate data in a reliable and publicly accessible manner, in order to instill confidence in buyers and promote a responsible, transparent and economically viable Argentine soy value chain.

Case Study

Second-Generation Biodiesel, General Lagos

In 2022, biodiesel from residue generated at our General Lagos plant was sold under the *ISCC* standard for the first time. This biofuel is produced by transesterification, a chemical reaction used for the conversion of triglycerides (fats) contained in oils into usable biodiesel.

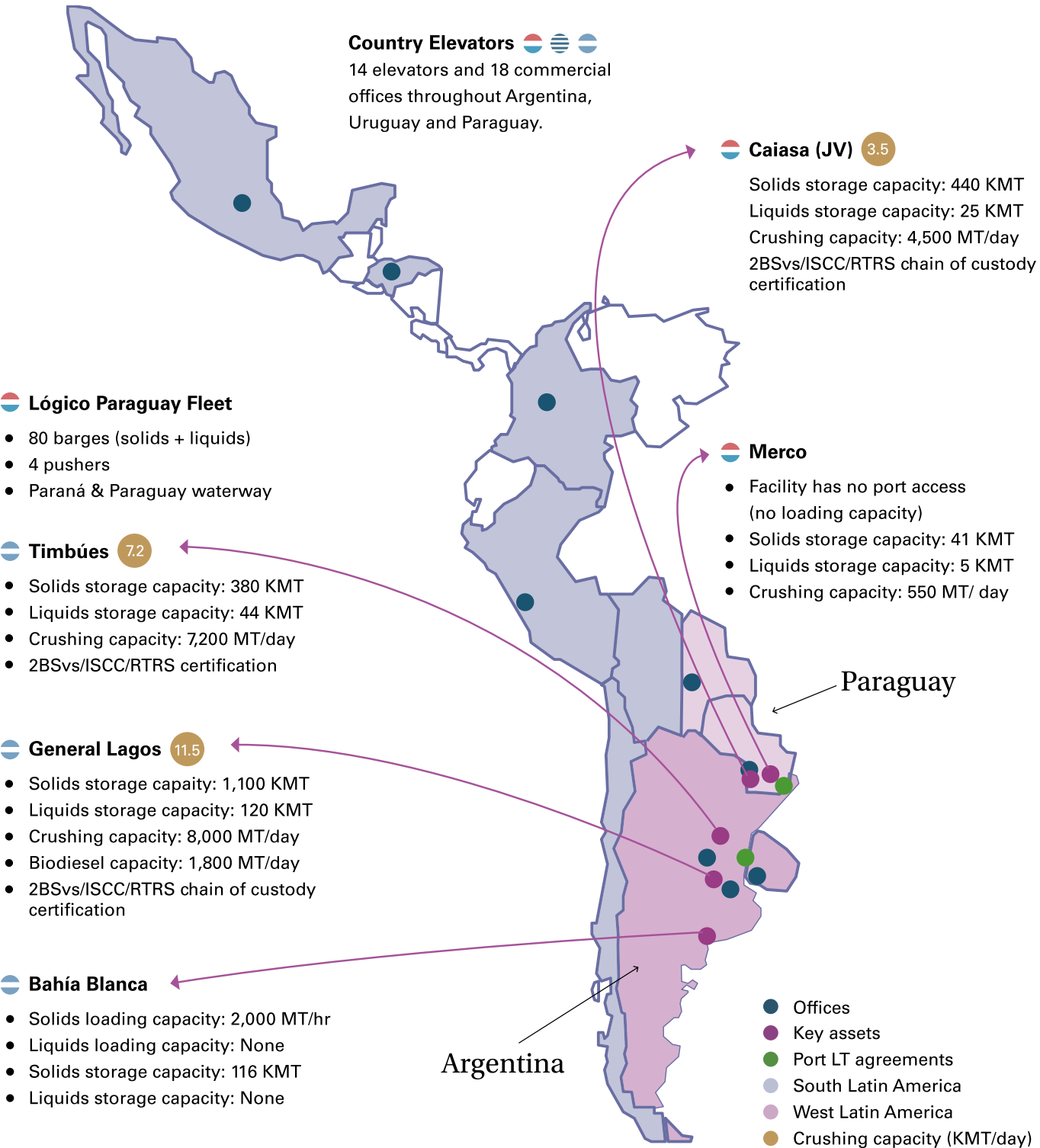
By re-using production residue through conversion into a product, we align with the [principles of a circular economy](#) and create a second-generation biodiesel that has a 88.6% greenhouse gas saving compared to conventional fossil fuel.



Spotlight on Paraguay

Historic drought levels in Paraguay severely impacted soy production in the country, with exporters’ association CAPECO estimating 2022 soy production as the lowest in 20 years, despite a much larger planting area. In this context, our sustainable sourcing volume suffered a setback, decreasing by almost 60% from previous year.

Nevertheless, we launched new pilots to further improve traceability data acquisition and management in our operations, continued to participate in the *Paraguayan Chamber of Grain and Oilseed Processors’ (CAPPRO)* Sustainability Commission and further contributed to the development of the Food Systems, Land Use and Restoration (FOLUR) Impact Program in Paraguay, which promotes more sustainable land management and soy/ beef production in sensitive landscapes that stretch across 160,000 ha.



Targets

Establish our baseline and annual targets for deforestation- and conversion-free soy

Completion: 2022
Status: Missed and postponed to 2023*

100% traceability to farm for direct sourcing in high-risk regions as defined in our deforestation risk assessment regions

Completion: 2023
Status: In Progress

Deploy additional supplier incentive schemes in Latin America to support native vegetation conservation beyond legal requirements

Completion: 2023
Status: Complete

Expand preferential financing program in Brazil’s Cerrado & Argentina’s Gran Chaco biomes

Completion: 2020-2025
Status: In Progress

* Achieved in the first quarter of 2023, to take into account updated data for Argentina.

New Targets

LDC Program for Sustainable Agriculture implemented in Argentina

Completion: 2023

100% zero deforestation and conversion in soy origination

Completion: 2025



GRI Content Index

Statement of Use

Louis Dreyfus Company has reported the information cited in this GRI content index for the period January 1, 2022 to December 31, 2022, with reference to the GRI Standards.

Disclosure	Location
GRI 2: General Disclosures 2021	
2-1 Organizational details	Louis Dreyfus Company Suisse SA, a company incorporated under the laws of Switzerland, with its registered office at GVA Centre, 29 Route de l'Aéroport, Geneva, 1215, Switzerland The list of main subsidiaries and countries of the Group can be found in note 7.5 of Consolidated Financial Statements .
2-2 Entities included in the organization's sustainability reporting	The list of main subsidiaries and countries of the Group can be found in note 7.5 of Consolidated Financial Statements .
2-3 Reporting period, frequency and contact point	Reporting period: January 1, 2022 to December 31, 2022 Frequency: Annual report Responsible Contact point: Murilo Parada. We welcome any feedback on our reporting, via our website contact form .
2-4 Restatements of information	Cotton BCI volumes 2021 have been restated.
2-5 External assurance	Scope 1, Scope 2 and biogenic GHG emissions at all global sites under the operational control of Louis Dreyfus Company B.V. and its subsidiaries, relative to the 2022 calendar year have been assured to a limited level of assurance.
2-6 Activities, value chain and other business relationships	Our Value Chain What We Do
2-7 Employees	Inclusive Workplace
2-9 Governance structure and composition	Who We Are
2-11 Chair of the highest governance body	Who We Are
2-13 Delegation of responsibility for managing impacts	Our Governance Structure
2-15 Conflicts of interest	LDC has a related party transactions policy which requires employees to communicate conflicts of interests. They are then escalated for approval. In addition, self disclosure campaigns for employees are conducted in selected countries.
2-16 Communication of critical concerns	Allegations are raised to the board for compliance matters and to the audit committee for fraud activities.
2-22 Statement on sustainable development strategy	CEO Message
2-23 Policy commitments	Please refer to the policies listed on our website . In 2023, LDC intends to widen the scope of these due diligence processes and to establish a more structured and wide-reaching framework.
2-24 Embedding policy commitments	Business Ethics and Compliance
2-25 Processes to remediate negative impacts	Please refer to our Grievance Mechanism
2-26 Mechanisms for seeking advice and raising concerns	Business Ethics and Compliance
2-28 Membership associations	Working with Partners
GRI 3: Material Topics 2021	
3-1 Process to determine material topics	Materiality Assessment
3-2 List of material topics	Materiality Assessment

GRI 1 used

GRI 1: Foundation 2021

Disclosure	Location
GRI 205: Anti-corruption 2016	
3-3 Management of material topics	Business Ethics and Compliance Governance
205-1 Operations assessed for risks related to corruption	Business Ethics and Compliance Governance
205-2 Communication and training about anti-corruption policies and procedures	Business Ethics and Compliance Governance
GRI 206: Anti-competitive Behavior 2016	
3-3 Management of material topics	Business Ethics and Compliance Governance
GRI 302: Energy 2016	
3-3 Management of material topics	Climate
302-1 Energy consumption within the organization	Climate
302-3 Energy intensity	Climate
302-4 Reduction of energy consumption	Climate
GRI 303: Water and Effluents 2018	
3-3 Management of material topics	Water
303-3 Water withdrawal	Water
GRI 305: Emissions 2016	
3-3 Management of material topics	Climate
305-1 Direct (Scope 1) GHG emissions	Climate
305-2 Energy indirect (Scope 2) GHG emissions	Climate
305-4 GHG emissions intensity	Climate
305-5 Reduction of GHG emissions	Climate
GRI 306: Waste 2020	
3-3 Management of material topics	Waste
306-1 Waste generation and significant waste-related impacts	Waste
306-2 Management of significant waste-related impacts	Waste
306-3 Waste generated	Waste
GRI 403: Occupational Health and Safety 2018	
3-3 Management of material topics	Safe Workplace Safety and Health
403-1 Occupational health and safety management system	Safe Workplace Safety and Health
403-2 Hazard identification, risk assessment, and incident investigation	Safe Workplace
403-3 Occupational health services	Safe Workplace Safety and Health
403-6 Promotion of worker health	Safety and Health
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Safe Workplace Safety and Health
403-9 Work-related injuries	Safe Workplace
403-10 Work-related ill health	Safe Workplace

Disclosure	Location
GRI 404: Training and Education 2016	
3-3 Management of material topics	Training Career Development
GRI 405: Diversity and Equal Opportunity 2016	
3-3 Management of material topics	Inclusive Workplace Diversity
405-1 Diversity of governance bodies and employees	Inclusive workplace
GRI 406: Non-discrimination 2016	
3-3 Management of material topics	Business Ethics and Compliance Diversity
GRI 413: Local Communities 2016	
3-3 Management of material topics	Communities

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