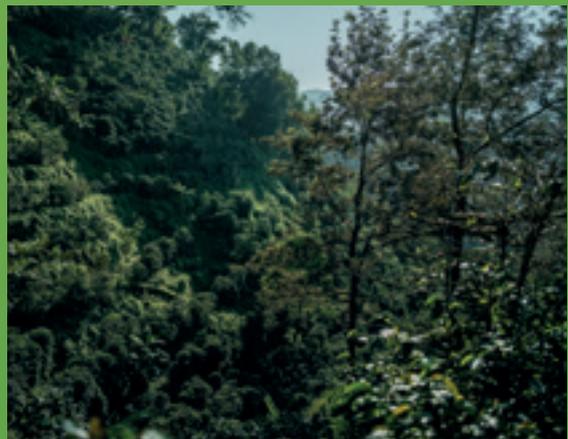


**Moving
forward
with purpose**

2018



Sustainability Report





Contents

Fundamentals

- 04**
Moving forward with purpose
– CEO message
- 06**
At a glance
- 08**
Toward development goals

Pillars of sustainability

- 16**
Our people
- 22**
Our environment
- 30**
Our partners
- 36**
Our communities

Platform insights

- 44**
Palm
- 48**
Juice
- 50**
Coffee
- 52**
Cotton
- 54**
Soybeans
- 58**
Freight



Fundamentals

04
Moving forward
with purpose –
CEO message

06
At a glance

08
Toward
development
goals

Moving forward with purpose

CEO message



As we publish our Sustainability Report for the seventh year in a row, I am pleased with the progress we are making and the connection of our long-standing sustainability efforts to the company's purpose of fair and sustainable value creation.

Introduced just over a year ago, our purpose perfectly reflects and drives the focus of our business. A lot of work was carried out in 2018 to give our people across the company the opportunity to share their insights and suggestions on what exactly it means to make our purpose an integral part of our day-to-day business.

At the same time, we are conscious that there is still much to be done and that no one organization can solve the challenges of feeding a growing world population sustainably. We are convinced that only by working together to find shared solutions to common global issues can we create a future that is sustainable and fair for all. Partnership among the myriad actors – governments, civil society, intermediaries, transporters, farmers, etc. – is the only path forward.

This report highlights some of the achievements and positive steps we have taken, alone and in partnership with others, during 2018 to develop a sustainable and traceable value chain, and an environment in which people and communities can flourish.

Successes and challenges in 2018

You will find in this report many examples of how our day-to-day business is inextricably linked with the drive toward a safe and sustainable future.

2018 was our first year spent working toward the global, time-bound environmental impact reduction targets we set in 2017, and this process has pushed us to take great strides and to confront difficulties.

We have made important steps in measuring our impact transparently, for instance by presenting the full carbon profile of our Freight activities for the first time (see page 59), as a baseline from which to improve. At the same time, we missed our goal to reduce overall environmental impacts associated with our asset footprint

Our performance against targets in 2018



by 1% in 2018 and, although there are good reasons for this, that is not where we want to be. We will redouble our efforts in 2019 to attain the target 5% reductions by 2022 (see pages 22-28).

In other areas, our partnerships with expert organizations produced great results in 2018. We far exceeded our targets in cotton by increasing the amount of Better Cotton Initiative-verified produce we purchased by 140% year-on-year, and by 824% compared to 2013 (see page 52). In addition, we learnt that thanks to our long-standing partnership with the International Labour Organization (ILO) and myriad other stakeholders, we achieved our objective of eradicating child labor from cotton harvests in Uzbekistan (see page 31).

Still, recognition of significant progress in Uzbekistan is tempered by concerns about child labor in Burkina Faso's cotton industry, raised by NGO Solidar Suisse. Although all the cotton we source from Burkina Faso is certified through the Cotton Made in Africa scheme, which trains farmers on the need to eliminate child and forced labor, we are investigating how we can improve further.

Palm and soy also reported successes during the year, not least with the introduction of our industry-leading Soy Sustainability Policy. Here again, there is a lot of work to do and we are likely to face challenges, but we will remain resilient in our commitment.

In palm, we have already excluded certain suppliers for non-compliance with our Palm Sustainability Policy, and decided not to trade with other entities in the same group on other commodities.

As our business strategy leads us further downstream in our value chains, we are also looking to ensure that new investments are

aligned with our sustainability commitments and meet consumers' increasing demand for product traceability. We are happy to embrace greater scrutiny and work to find solutions to some of the challenges.

The road is not necessarily easy, but I, like everyone at LDC, am resolved to focus on achieving commercial success sustainably, in line with our purpose.

Diversifying for success

Diversity is one of LDC's core values, and indeed the cultural, geographic and commercial diversity of our business is one of our fundamental pillars of success. But because we want to lead our industry in this space, we can and need to do more.

A genuine respect for differences and recognition of the importance of inclusion are already part of LDC's DNA. To make every aspect of working at our global company welcoming for every profile of talented person who might join us, we are exploring ways to bring this to life in practical ways.

As a first step, in 2018 we completed a gender diversity review, which has become the basis for a full-scale program of broad policy changes and more granular adjustments as we move forward (see pages 20-21).

I believe this will make LDC more inclusive, regardless of gender, origin or background, and help ensure that we attract, nurture and retain the best available talent everywhere.

The future of sustainability

Our purpose to create fair and sustainable value remains our ultimate goal. I would like to mention two key areas where we will put particular focus in the near future, in order to deliver on our commitments to sustainability and transparency.

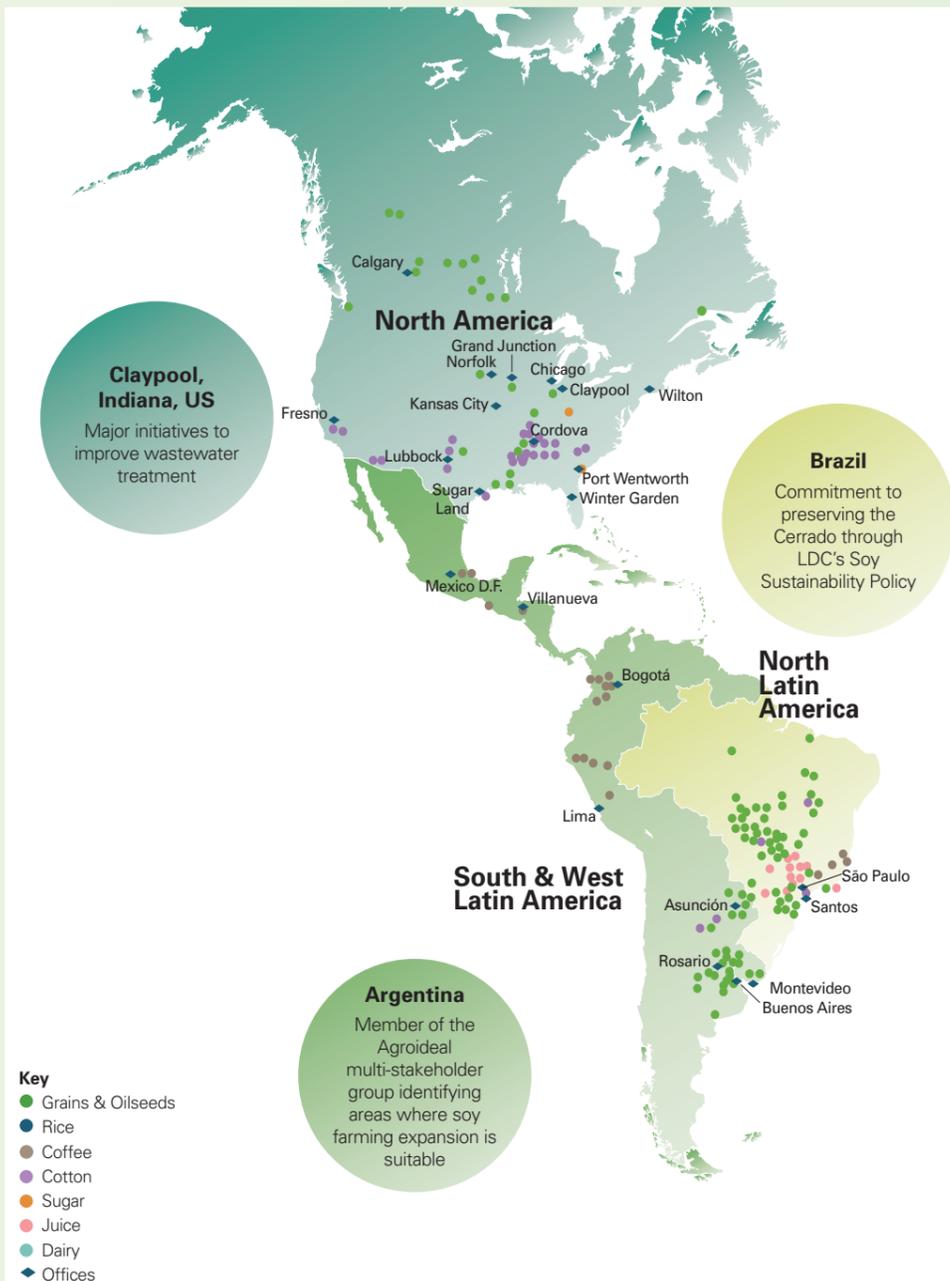
First, we will be evolving our Corporate Sustainability Policy, originally written in 2010 as an internal document, into a publicly available statement of our commitments, globally and in specific value chains such as palm, soy and coffee. It will also define more formally our commitment to promoting human rights in accordance with the United Nations' Guiding Principles on Business and Human Rights.

Secondly, and building on this, we will reinforce our sustainability governance processes with a new oversight committee for each of environmental and human rights protection. Both committees will include members of LDC's Senior Leadership Team and sustainability function, and we are looking to engage acknowledged experts from outside the company to sit on each committee, to guide and challenge us.

I believe these steps, guided by our values and purpose, will provide LDC with a solid foundation on which to progress further toward transparent, traceable and sustainable operations.

At a glance

Louis Dreyfus Company is a leading merchant and processor of agricultural goods, leveraging its global reach and extensive asset network to deliver for customers and consumers around the world – safely, responsibly and reliably.



Our vision

To work toward a safe and sustainable future, contributing to the global effort of providing sustenance for a growing population.

Our purpose

We are committed to supporting the communities we serve, through fair and sustainable value creation.

Our mission

To use our know-how and global reach to bring the right product to the right location, at the right time.

Value Chain Segment

- Grains
- Oilseeds
- Juice
- Freight
- Global Markets

Merchandizing Segment

- Coffee
- Cotton
- Sugar
- Rice
- Dairy

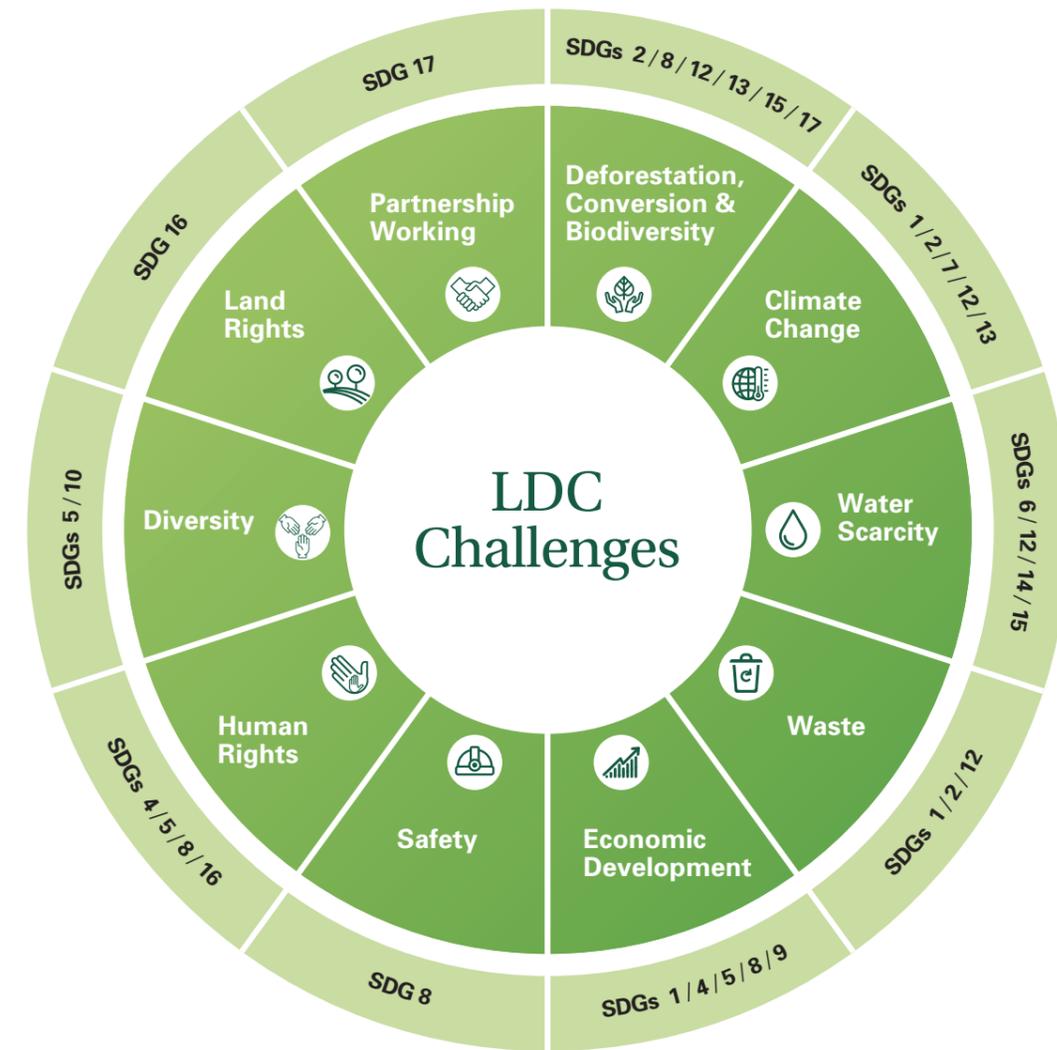
Toward development goals

Led by our purpose, we aim to be a leader in our industry toward meeting the UN's Sustainable Development Goals (SDGs). These goals, and the motivation behind them, are clear, but the fundamental ways in which agribusinesses like LDC can help are less well known.

Last year's report outlined the SDGs we can contribute to through our position in each of our value chains, and how we do so. In this report, we explain how we will develop our direction and governance to accelerate those efforts across the Group.

Sustainable Development Goals (SDGs)

- 1 NO POVERTY** No Poverty
- 2 ZERO HUNGER** Zero Hunger
- 3 GOOD HEALTH AND WELL-BEING** Good Health and Well-Being
- 4 QUALITY EDUCATION** Quality Education
- 5 GENDER EQUALITY** Gender Equality
- 6 CLEAN WATER AND SANITATION** Clean Water and Sanitation
- 7 AFFORDABLE AND CLEAN ENERGY** Affordable and Clean Energy
- 8 DECENT WORK AND ECONOMIC GROWTH** Decent Work and Economic Growth
- 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE** Industry, Innovation and Infrastructure
- 10 REDUCED INEQUALITIES** Reduced Inequalities
- 11 SUSTAINABLE CITIES AND COMMUNITIES** Sustainable Cities and Communities
- 12 RESPONSIBLE CONSUMPTION AND PRODUCTION** Responsible Consumption and Production
- 13 CLIMATE ACTION** Climate Action
- 14 LIFE BELOW WATER** Life Below Water
- 15 LIFE ON LAND** Life on Land
- 16 PEACE, JUSTICE AND STRONG INSTITUTIONS** Peace and Justice Strong Institutions
- 17 PARTNERSHIPS FOR THE GOALS** Partnerships for the Goals



Partnership Working

Global Policy: **SDGs 17**
 Our Partners (p30)
 Platforms
 Juice Soy
 Coffee Freight
 Cotton Palm

Land Rights

Platforms **SDGs 16**
 Palm
 Soy

Diversity

Global Policy: **SDGs 5 10**
 Our People (p20)

Human Rights

Global Policy: **SDGs 4 5 8 16**
 Our People (p20)
 Platforms
 Cotton
 Soy

Safety

Global Policy: **SDGs 8**
 Our People (p17)
 Platforms
 Juice

Deforestation, Conversion & Biodiversity

Global Policy: **SDGs 2 8 12 13 15 17**
 Our Environment (p23)
 Platforms
 Palm Juice
 Soy Coffee

Climate Change

Global Policy: **SDGs 1 2 7 12 13**
 Our Environment (p23)
 Platforms
 Freight Coffee
 Soy

Water Scarcity

Global Policy: **SDGs 6 12 14 15**
 Our Environment (p23)
 Platforms
 Cotton Coffee
 Juice

Waste

Global Policy: **SDGs 1 2 12**
 Our Environment (p23)
 Platforms
 Juice

Economic Development

Global Policy: **SDGs 1 4 5 8 9**
 Our Communities (p36)
 Platforms
 Juice Cotton
 Coffee



Leading with purpose

Originally established in 2010, LDC's policy, governance structure and group-wide approach to sustainability have evolved over the years. We have added policies and governance where necessary, such as our palm and soy sustainability policies, and our code of conduct for coffee suppliers.

Today, following the introduction of our company purpose, it's time to create a new, unified set of policies and procedures that will help ensure we both monitor and maintain overall momentum.

Policy

We are formulating a new, Group-wide Sustainability Policy, to be completed in 2019, which will provide a framework for all platforms, bringing together best practice from existing commodity-specific policies and procedures, and adding a specific Human Rights Observance Protocol.

The new policy will also serve to govern all activities under our Community pillar, currently devolved for decision by each of LDC's regions. Activity will continue to be planned and implemented at regional level, but in accordance with our new policy guidelines.

Governance

In 2019, we will establish a new governance structure that allows focus on key areas, as follows:

- Safety, Health & Environment (SHE) Committee – this existing committee will retain oversight and planning in relation to workplace safety and the environmental footprint of our offices, logistic assets and industrial facilities. Members include Regional SHE leaders and members of the LDC Senior Leadership Team.

- Environmental Committee – the remit of this new committee will cover all other aspects of LDC's environmental impacts, principally in relation to our supply chains. Standing members will include our CEO, COO, Head of the Oilseeds Platform, Head of Sustainability and Head of SHE. We also aim to engage the membership of an acknowledged expert from outside the company, and will invite ad hoc attendees where necessary.

- Human Rights Observance Committee – also new, this committee will direct our approach on all human rights-related issues, from diversity within LDC to child labor in supply chains, based on a new Human Rights Observance Protocol. Members will include our CEO, COO, Heads of HR and Sustainability, and representatives of our platforms and other business areas as appropriate. Again, we will seek to include relevant external expertise.

- Regional Community Committees – these new committees will guide and oversee the application of the community framework within LDC's new Sustainability Policy for their respective region. They will review regional needs and priorities, select initiatives, set budgets and oversee implementation. Each committee will be chaired by the relevant Head of Region, with other members selected case by case.

Details on how the policy and governance structure applies across the main challenges we face are opposite.

Deforestation, conversion & biodiversity

The challenge

Conserving forests and other high conservation value habitats, while meeting rising food demand with diminishing available land.

Applicable SDGs



Our policies

New LDC Sustainability Policy
Palm Sustainability Policy
Soy Sustainability Policy
Coffee Supplier Code of Conduct

Oversight

New Environmental Committee

Key commitments

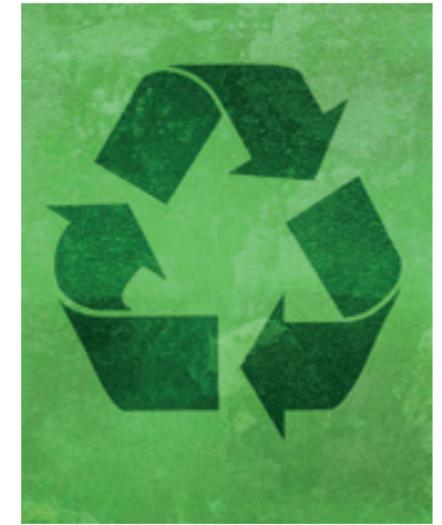
LDC global No Deforestation, No Peat, No Exploitation (NDPE) commitment

Direct effect

Juice, citrus farming in Brazil →p48

Influence/partnership working

Palm, NDPE activity →p44
Soy, NDPE activity →p54
Juice, Biodiversity and Conservation Plans, Rainforest Alliance activity →p49
Coffee, training farmers and responsible sourcing →p51
Cotton, training farmers →p53
Sugar, Bonsucro activity →p31
Community, training farmers →pp38-41



Climate change

The challenge

Grow our activities with a lower impact, and help other stakeholders do the same.

Applicable SDGs



Our policies

New LDC Sustainability Policy

Oversight

SHE Committee

Key commitments

5% reduction in our GHG emissions and energy consumption indexes by 2022

Direct effect

Environment →p22
Freight, fleet emissions monitoring and chartering decisions →p59

Influence/partnership working

Community, training farmers →pp37-41
Cotton, training farmers →p53
Coffee, training farmers →p51
Juice, training farmers →p48

Water scarcity

The challenge

Use less water at our citrus farms and processing assets, while ensuring wastewater is clean, and help others do the same.

Applicable SDGs



Our policies

New LDC Sustainability Policy

Oversight

SHE Committee

Key commitments

5% reduction in our water consumption index by 2022

Direct effect

Environment →p22

Influence/partnership working

Community, training farmers →pp37-41
Cotton, training farmers →p53

Waste

The challenge

Eliminate waste from value chain stages we control, including by investing in logistics to optimize origination and reduce post-harvest waste, and help others reduce waste.

Applicable SDGs



Our policies

New LDC Sustainability Policy

Oversight

SHE Committee

Key commitments

5% reduction in solid waste sent to landfill by 2022

Direct effect

Environment →p22

Influence/partnership working

Community, helping farmers get products to market rather than wasting →p38

Economic development

The challenge
Contribute to economic empowerment through creating jobs, contributing to education and promoting access to international markets for people in areas where we invest in our footprint.



Our policies
New LDC Sustainability Policy

Oversight
Regional Community Committees

Key commitments
Establish a new framework for all community projects in 2019

Direct effect
Across our business, investing in developing assets and creating jobs

Influence/partnership working
Community, multiple training projects →pp37-41

Safety at work

The challenge
Create a zero-accident work environment, by encouraging our employees and others to live safer, healthier lives.



Our policies
New LDC Sustainability Policy

Oversight
SHE Committee

Key commitments
Reduce the frequency, gravity and severity of accidents each by 10% year-on-year

Direct effect
People →p16

Influence/partnership working
People, training employees and third parties →p19

Human rights

The challenge
Use fair labor practices; eliminate child and forced labor from our supply chains; respect diversity in all its forms.



Our policies
Human Rights Protocol
Palm Sustainability Policy
Soy Sustainability Policy
Coffee Sustainability Policy

Oversight
Human Rights Observance Committee

Key commitments
LDC global policy: do not employ any person under 16

Direct effect
People, primary policy →p20
Juice, recruiting seasonal workers →p48

Influence/partnership working
Partners, Uzbekistan collaboration →p31
Palm, implementing Sustainability Policy with suppliers →p45
Soy, implementing Sustainability Policy with suppliers →p54
Coffee, implementing Sustainability Policy with suppliers →p51

Diversity

The challenge
Remove any discriminatory imbalances that exist for people working for LDC, and influence others to do the same.



Our policies
New LDC Sustainability Policy

Oversight
Human Rights Observance Committee

Key commitments
Signatory to the UN Global LGBTI Standards for Business.
7 targets for 2019-20, implementing global changes to ensure an inclusive work environment at LDC.

Direct effect
People, diversity and inclusion work →p20

Influence/partnership working
Cotton, educating farmers in India →p53

Land rights

The challenge
Respect the rights of all landowners in expanding our operations.



Our policies
Human Rights Protocol

Oversight
Human Rights Observance Committee

Key commitments
Complete an environmental and social impact assessment before building any new, or expanding any existing, asset.

Direct effect
Environment, policy on impact assessments →p23
Soybeans, implementing impact assessments in Brazil →p55

Influence/partnership working
Soybeans, partnerships for land rights protection in Paraguay →p57

Working in partnership

The challenge
Meeting all our other challenges



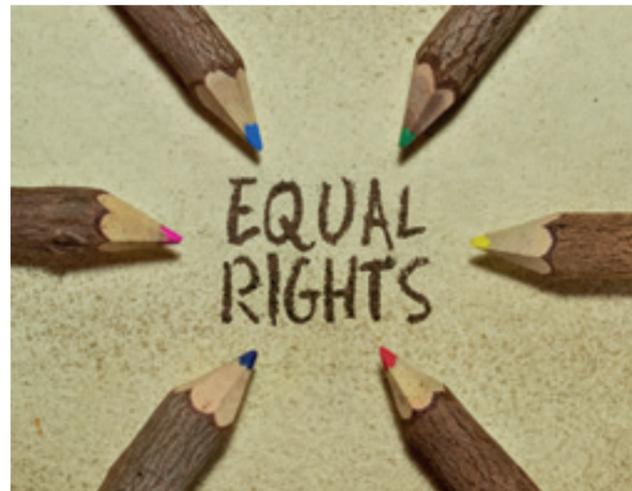
Our policies
New LDC Sustainability Policy

Oversight
All committees

Key commitments
N/A

Direct effect
N/A

Influence/partnership working
Coffee →p50
Community →p36
Cotton →p52
Environment →p22
Freight →p58
Juice →p48
Palm →p44
Partners →p30
Soybeans →p54





Pillars of sustainability

16
Our people

22
Our environment

30
Our partners

36
Our communities

Our people



LDC employs an average of 18,000 people throughout the year, and engages several thousand contractors, across our 180 locations around the world.

As a global employer, we are in a key position to contribute to Sustainable Development Goals to eliminate poverty, create decent jobs, aid economic growth and promote inclusive work environments for many people, directly and indirectly.



Targets

Reduce lost time injuries to zero	Reduce frequency of workplace accidents by 10% YOY	Reduce gravity of workplace accidents by 10% YOY	Complete gender diversity reviews across all LDC Regions
Completion: In Progress	Completion: 2018	Completion: 2018	Completion: 2018
Progress: In Progress	Progress: Missed	Progress: Missed	Progress: Completed

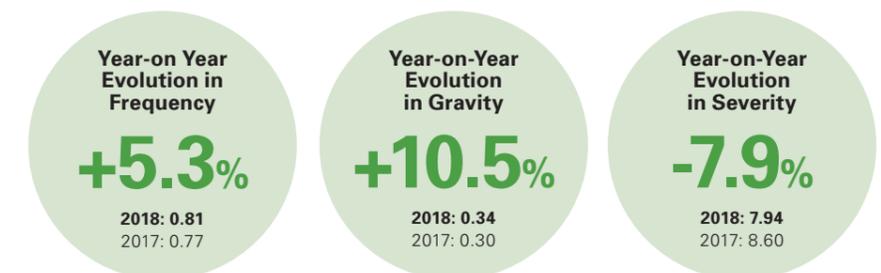
Committed to zero

LDC is committed to the long-term goal of creating a zero-accident work environment at all our sites. Accordingly, our Safety, Health & Environment (SHE) policy and management system aim to embed a safety culture in the daily work of every single employee and contractor who works for and with us.

This relentless focus on safety is reflected in ambitious targets to reduce the frequency, gravity and severity of accidents every year.

Although we reduced the number of recordable injuries in 2018, with fewer hours worked in total across our assets, we missed our reduction targets for the year. We nevertheless reduced the severity of accidents compared to 2017, and set a new target to reduce the severity of accidents by 10% year-on-year from 2019 onwards.

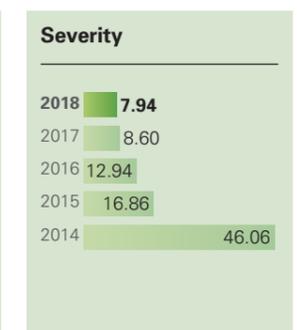
Global Frequency, Gravity & Severity Indexes



The Frequency Index shows the relation between the number of workplace injuries requiring medical attention, and hours worked. The ratio expresses the number of employees in every 100 who experienced an injury needing medical attention during the year.

The Gravity Index is a subset showing the relation between the number of workplace injuries serious enough to result in time away from work, and hours worked.

The Severity Index shows the relation between the number of days away from work needed due to injury, and hours work. It is expressed per 100 employees for 1 working year





Zero Lost Time Injuries 2012 to 2018

The proportion of assets that operated for an entire year without a lost-time accident (which is an accident requiring time off work) in 2018, remained comparable to 2016 and 2017 levels.

% of Facilities Recording Zero Lost Time Injuries

Asia



Europe & Black Sea



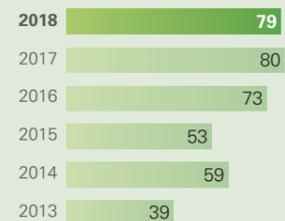
Middle East & Africa



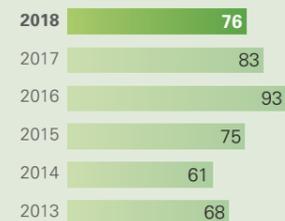
North America



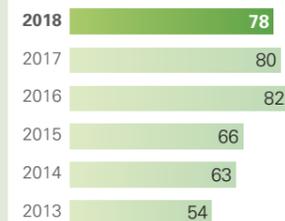
North Latin America



South & West Latin America



Global



This year's reporting preserves LDC's previous regional structure to aid comparison

Making SHE a priority

We constantly strive to ensure that our SHE strategy is a priority at all levels of our company. It is deployed through our SHE Policy and built around three pillars:

- Occupational Safety and Health
- Process Safety
- Environment

Each asset shares best practices and procedures through our SHE Management System, setting expectations for compliance by every employee and contractor.

SHE committees at global, regional and asset level are responsible for overseeing the proper execution of this system, defining priorities, assessing resource requirements and monitoring progress against targets.

Our efforts in 2018 centered on simplifying processes and executing our SHE strategy efficiently, by:

- Rolling out a new KPI reporting system to all assets, with a simpler, faster, more powerful tool to track performance from specific areas within assets up to global level, allowing employees to focus on injury prevention
- Completing our suite of new standards and policies for all activities identified as involving the highest risk
- Refining the SHE Management System with standards for each asset in a leaner, more effective process



Safety Day

LDC celebrated its 9th annual Safety Day on March 14th, 2018, reinforcing our safety-first culture and encouraging individuals to take responsibility for collective safety in their work environment, with the theme "Our safety is my priority".

Taking place at every LDC location, over 11,000 employees and more than 2,000 contractors and joint-venture partners participated in the day's events and activities.

A diverse LDC

With diversity one of LDC's core values, seeking to inspire respect for every individual, and for diversity in all its forms, is a priority – and this in every aspect of our business.

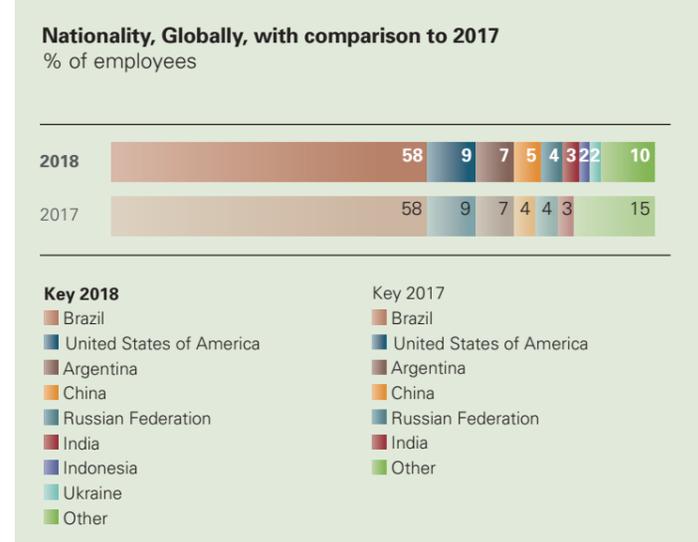
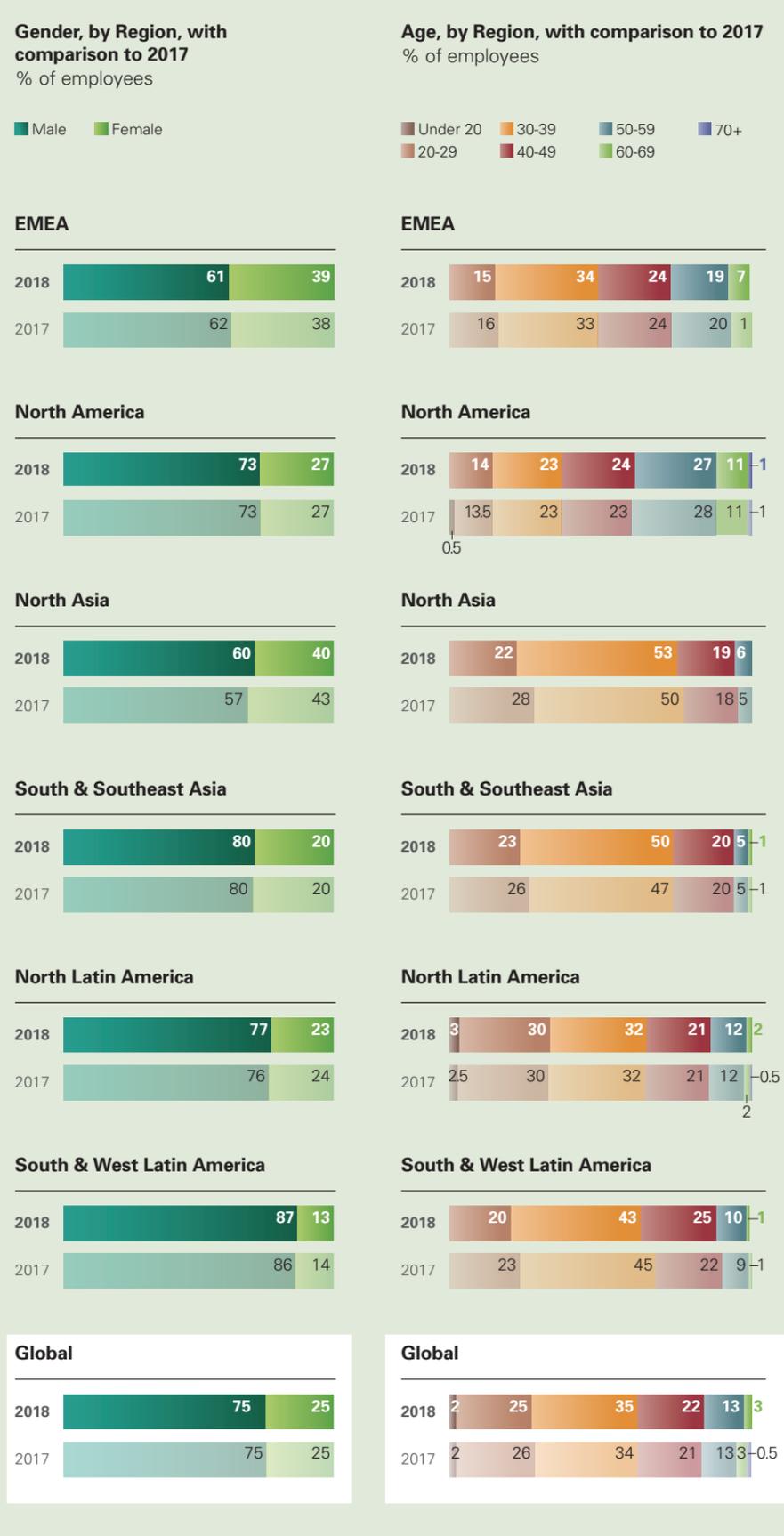
To fully leverage the diversity of talent at LDC, we have identified the need to do more to ensure our work environment is inclusive. Supported by an external consultancy, in 2018 we conducted several rounds of consultation and interviews with people across all our regions. The results led to the definition of an action plan for 2019 and 2020, and a diversity program that will begin in 2019.

The first phase of action aims to build the foundations for change through a series of workshops for senior management and human resources, covering unconscious bias and inclusive leadership. The second phase is designed to embed and sustain lasting change across the company.

Although specific steps will differ in each region, they will fall under one of two categories:

- Inclusive culture – promoting a culture that celebrates diversity
- Inclusive talent – ensuring that our talent management process is bias-free

LDC also became a signatory to the UN Global Lesbian Gay Bisexual Transgender and Intersex Standards for Business in 2018. As pointed out by our partners at the UN (see page 34), we are at the beginning of our work, and these standards will inform our ongoing program of change at LDC.



2019 and beyond

Protecting the safety and wellbeing of our people remains our top priority, and we will continue to aim for 10% annual reductions in our safety metrics and, ultimately, for a zero-accident environment across all our locations.

As previously mentioned, phase 1 of our diversity program involves a range of activities to make our inclusion goals happen over 2019-2020, including:

- Integrating D&I policy and materials into employee onboarding processes at a regional level
- Establishing a set of globally applicable principles for promoting work-life integration and flexible work
- Creating region- and platform-specific work-life integration options
- Refreshing our employee value proposition and our approach to attracting talent
- Setting a global inclusive recruitment standard for LDC
- Establishing a Diversity & Inclusion (D&I) Oversight Committee
- Incorporating D&I within business planning and review processes
- Creating a global policy framework with flexibility for local implementation

New Targets

Reduce lost time injuries to zero

Target:
In Progress

Reduce frequency of workplace accidents by 10% YOY

Target:
2019

Reduce gravity of workplace accidents by 10% YOY

Target:
2019

Establish a Global D&I Oversight Committee

Target:
2019

Create a global D&I policy framework

Target:
2019

All HR teams to integrate D&I materials in local employee onboarding process

Target:
2019

Create a global inclusive recruitment standard

Target:
2019

Establish global principles for promoting work-life integration

Target:
2020

Put into place region- and platform-specific options to promote work-life integration and flexible work

Target:
2020

Refresh the LDC employee value proposition and talent attraction strategy

Target:
2020

Our environment



Targeting emissions reductions in all areas of our business

Feeding 9 billion people in 2050 will require 50% more agricultural production and 15% higher withdrawals of water.¹ The need to increase production may compete with the need to preserve land with high ecological value that is vital to our global ecosystem.

LDC has a leading position in the value chain, as a global merchant and processor of agricultural goods, with logistic assets though only limited farming operations. Our position gives us a responsibility and opportunity to source and distribute products reliably and responsibly, while reducing the environmental impact of our sector.

Our work therefore focuses on:

Biodiversity – preventing habitat destruction that may be caused by our activities

Emissions and energy usage – targeting reductions in all areas of our business

Water consumption and wastewater – minimizing freshwater use and ensuring wastewater does not cause pollution, mainly at processing assets

Solid waste generation – saving resources by reusing or recycling, and avoiding pollution by properly disposing of waste



Targets

Reduce global energy consumption by 1% year-on-year	Reduce global greenhouse gas emissions by 1% year-on-year	Reduce global water consumption by 1% year-on-year	Reduce solid waste sent to landfill by 1% year-on-year	Reduce global energy consumption by 1% year-on-year, each year from 2019-2022	Reduce global greenhouse gas emissions by 1% year-on-year, each year from 2019-2022	Reduce global water consumption by 1% year-on-year, each year from 2019-2022	Reduce solid waste sent to landfill by 1% year-on-year, each year from 2019-2022
Completion: 2018	Completion: 2018	Completion: 2018	Completion: 2018	Completion: 2022	Completion: 2022	Completion: 2022	Completion: 2022
Progress: Missed	Progress: Missed	Progress: Missed	Progress: Missed	Progress: In progress	Progress: In progress	Progress: In progress	Progress: In progress

Biodiversity

We prioritize the protection of ecosystems both in our daily business operations and when we expand our footprint.

We recognize that losing land of high ecological value destroys habitats, has knock-on effects for climate change, affects water retention and can disrupt local communities. That is why we launched our company-wide No Deforestation, No Peat, No Exploitation (NDPE) commitment in 2016, which leads us to:

- Conduct environmental and social impact assessments before commencing a new project in an area with potential sensitivities – for instance in building new logistics capacity in northern Brazil (page 55).
- Replace habitats that we build over when we extend or develop new assets.
- Create and follow Biodiversity Protection and Conservation Plans at all our citrus farms in Brazil (see page 49).
- Train farmers in responsible farming practices that preserve habitats – for instance in our Coffee Platform, working with NGOs and customers (see page 51).

Our NDPE commitment is a particular focus for our palm and soy operations, with more detail on pages 44 and 54 respectively.



Prioritize the protection of ecosystems

Emissions, water and waste

Having set time-bound reduction targets in 2017 across all our environmental metrics, 2018 was an extremely challenging year.

Overall volumes of feedstock handled were down 10%, and some of our regions were affected by extreme weather events. Since our metrics are based on resource usage (or waste) per ton of feedstock processed or handled, the volume reduction heavily impacted our performance against targets despite improvements at most of our locations. It is worth noting that these issues mostly affected South America.

This context led to a disappointing 2018 performance across environmental metrics with annual targets missed, but we will redouble our efforts to get back on track to meet our 2022 targets, including significant new capital investments to be deployed in 2019-20.

¹ The World Bank, 2017 (<https://blogs.worldbank.org/opendata/chart-globally-70-freshwater-used-agriculture>)

Greenhouse gas (GHG) emissions

GHG Emission Index
(Kg CO₂e/MT)

The GHG emissions index shows the quantity of GHGs emitted per ton of feedstock either crushed or processed for each region in which we operate. It is measured in kilograms of carbon dioxide-equivalent per metric ton of feedstock (Kg CO₂e/MT).

The year-on-year increase in this index includes a 7% absolute increase in emissions compared to 2017. In addition to the global decrease in volumes handled, the primary driver was the inclusion for the first time in our reporting of the purchase of third party-produced steam in Asia. The sale of our fertilizers and inputs business also removed several low energy usage sites from our calculations.



Dongguan, China

Case study
GHG emissions efficiency

In 2018, two soybean-processing plants in China, at Zhangjiagang and Dongguan, innovated to reuse heat, improve processes and thereby reduce emissions.

To extract oil from soybeans, a significant amount of heat is used and then lost, usually in the form of steam.

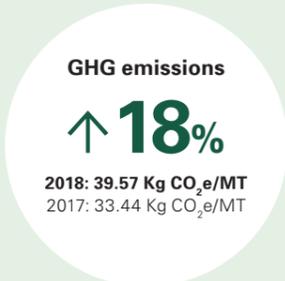
Our teams in Dongguan found a way to reuse the heat, by introducing a heat exchanger to create the hot air required to dry soybean meal. This cut emissions from the site by almost 4 million Kg CO₂e per year.

In Zhangjiagang, our teams designed a new heat exchanger to reuse heat given off in this same process. Between heating miscella to separate soybean oil from its solvent and cooling the oil that has been separated out, they then installed a new, more efficient exchanger. These efforts will save over 1.5 million Kg CO₂e annually.

Case study
GHG emissions & solar energy

Brazil and Kenya have excellent conditions for harnessing solar power. This year we installed solar panels at both our Alto Garças oilseeds warehouse in Mato Grosso state, Brazil, and our palm oil storage facility in Mombasa, Kenya.

Alto Garças was LDC's first solar generation plant in Brazil, and made the warehouse energy self-sufficient. It often generates more electricity than it needs, which is then transferred through distribution lines to supply nearby homes with clean energy.



Energy consumption

Electrical Power Consumption Index
(Kwh/MT)

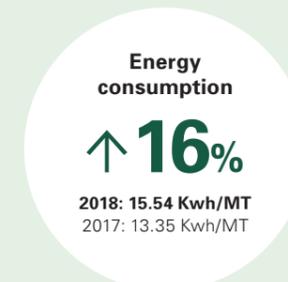
The energy consumption index shows the ratio of electrical power consumed to process feedstock in each region. For industrial facilities this refers to feedstock processed, and in the case of a warehouse or logistics facility we refer to feedstock handled. The unit of measurement is kilowatt-hours per metric ton (KWh/MT).

In 2018 we changed the way this index is calculated, to reflect how we report on this data. It now shows electrical power consumption and not energy consumed by burning fuel, since our efforts to reduce the latter are tracked by the GHG emission index. We are therefore focusing energy consumption on electrical power consumed, in order to monitor our footprint in a more streamlined manner. This is the beginning of a process to reflect the goal of reducing fossil fuel consumption, with reporting ultimately covering all carbon dioxide (equivalent) generated in our supply chain.

In addition to the reduction in volumes handled, a significant rise in production in Asia (particularly biodiesel and sugar processing in China) pushed energy consumption higher. Efficiencies will be made over the coming year to mitigate this effect and bring about a return to reductions in this metric.



Ponta Grossa, Paraná state, Brazil



Case study
Energy consumption

Preparing soybeans for soybean oil production uses energy to crack the beans, to crush them to increase surface area, and to heat them.

Energy usage in the process depends on the amount of soybeans fed in, but the power supply was not being modulated to account for this at our processing asset in Ponta Grossa, Paraná state, Brazil. Introducing a tool to adjust energy consumption based on soybean volumes, in addition to the use of lighter, plastic buckets on soybean elevators instead of metal, cut Ponta Grossa's electricity consumption by 1.7%.

Solid waste

Waste Index
(MT/MT)

The ratio here shows the amount of waste produced and sent to landfill for every ton of feedstock crushed or processed. It is measured in metric tons per metric ton (MT/MT).

We no longer report on wastewater volumes to focus on key KPIs, particularly on reducing water consumption. Using less water, including by reusing water that might otherwise be treated as waste, will positively impact our wastewater profile as well. The proper treatment of water that cannot be reused and its return to public systems or watercourses remains, of course, a priority. We will therefore continue to report on our continuous improvement efforts in this area, as you can see from the case study opposite.

Major improvements in solid waste reduction were, unfortunately, offset by two one-off events in 2018, resulting in an overall increase in waste sent to landfill.

A combination of various reduction, recycling and alternative waste disposal methods contributed to excellent results in both North Asia (36% reduction) and North Latin America (42% reduction).

At our grain elevator in Port Allen, Louisiana, US, however, 11,100 tons of grain became wet during storage, could not be processed and had to be sent to landfill. At our sunflower seed processing plant in Lichtenburg, South Africa, waste seed husks produced in 2017, before we took control of the plant, had not been disposed of and had to be sent to landfill in 2018. These two events combined represented 50% of all waste sent to landfill by LDC this year, which means we expect a huge improvement in 2019 compared to 2018.



Claypool, Indiana, US

Case study Solid waste

Refining palm oil at our facility in Lampung, Indonesia, generates ash from operating boilers and bleaching earth, a bought-in product for cleaning palm oil during the process.

Our local SHE managers identified a way to reuse these products, instead of discarding them as waste. They found a local cement factory, operated by Baturaja Cement Persero, and a nearby brick maker, Putra Restu Ibu Abadi Company, who could both use the products, with other raw materials, in their manufacturing processes.

In 2018 alone, this resulted in over 13,000 tons of ash and earth being turned into cement and bricks, instead of being disposed of as waste. With this approach we also save waste disposal costs, generate revenue by selling the ash and earth, and help two local companies reduce their own resource usage.

Case study Wastewater

This year we took several steps to get ahead of the phenomenal growth of our oilseed processing capabilities in Claypool, Indiana, US, which had created a rapid increase in the volume of wastewater our treatment systems were being asked to handle.

We installed additional storage tanks to hold wastewater at peak times, removing stress from the treatment process. We also installed frac tanks that more effectively remove organic contaminants, improving capacity. Further projects are in the pipeline, including:

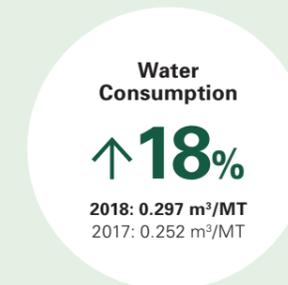
- A new deionization unit for the glycerin plant, which will reduce demand on other parts of the wastewater treatment process
- A dewatering press that will reduce the volume of sludge currently applied to land by 90%
- Additional Dissolve Air Flotation units to improve final filtration

Water consumption

Water Consumption Index
(m³/MT)

Our water consumption index 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).

An extremely dry growing season in Brazil caused our citrus farms to have to use an additional one million cubic meters of water compared to 2017. Combined with lower feedstock volumes, especially in South & West Latin America, despite an absolute reduction in water consumption by 9%, this led to an 18% increase in this index.



Case study Water usage

Our citrus processing plant in Matão, São Paulo state, Brazil, found a way to save over 175,000m³ of water annually by investing in a new conveyor belt system.

The belt system is essential to move oranges around the facility, but used to require a constant flow of water to prevent slippage. The new belt system does not require water at all, saving approximately 20m³ per hour.

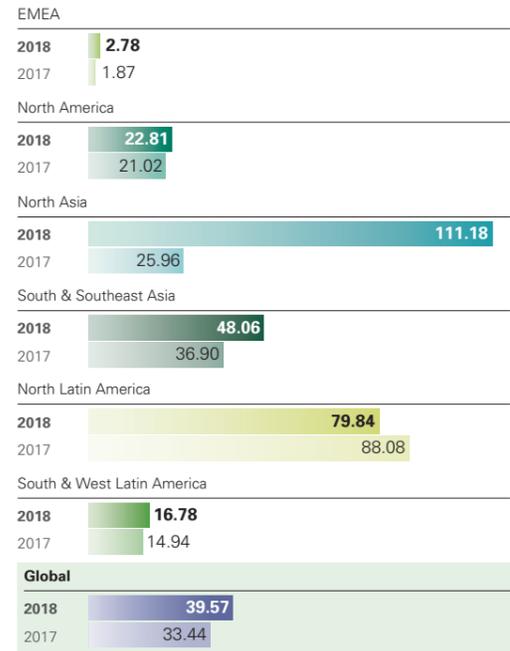


Environmental performance by Region

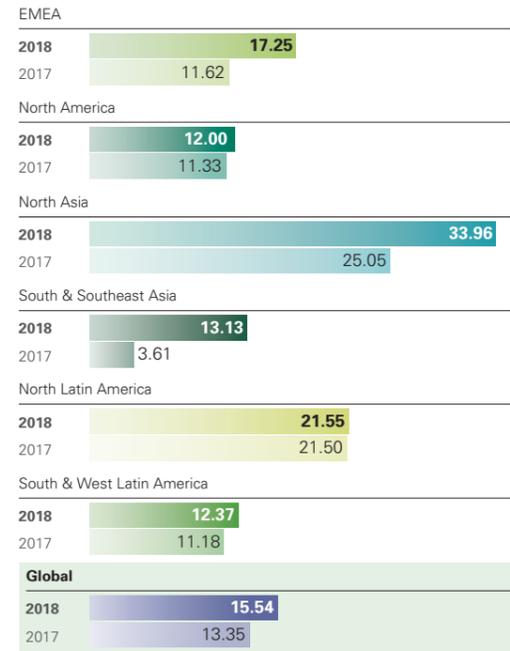
Each of LDC's business regions has targets to contribute to the company's reduction goals, as well as systems and targets, right down to asset level, to generate efficiencies.

This breakdown helps to see where opportunities arise across our global portfolio, while the case studies illustrate how autonomous, asset-by-asset efforts drive performance.

GHG Emission Index (Kg CO₂e/MT)



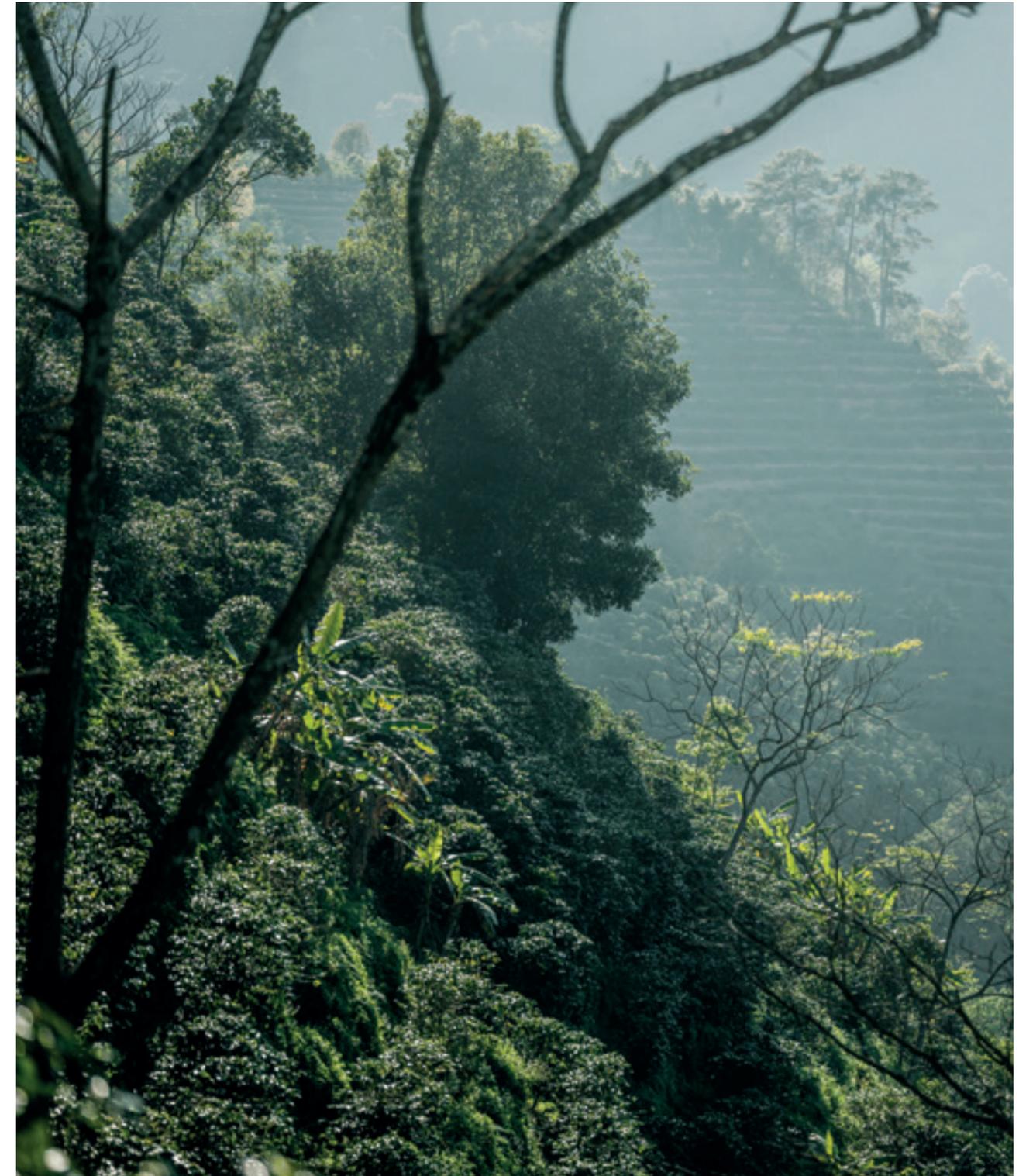
Electrical Power Consumption Index (Kwh/MT)



Water Consumption Index (m³/MT)



Waste Index (MT/MT)



Our partners

As a leading global merchant and processor of agricultural goods, we have influence throughout the value chain but recognize that we can have a greater impact by working with others. This is why Sustainable Development Goal 17, which advocates “partnerships for the goals”, is so important to us.

We leverage our position to learn from, train and create change with others. Examples of how we do this, and insights from some of our partners, appear in this section. Our partnerships also feature in the sections dedicated to our business lines:

- Palm** →pages 44-47
- Juice** →pages 48-49
- Coffee** →pages 50-51
- Cotton** →pages 52-53
- Soybeans** →pages 54-57
- Freight** →pages 58-60



We can have a greater impact by working with others

Collaboration in 2018

We engaged in several major initiatives and many enriching interactions across LDC this year. These are set out in the table overleaf, while various detailed examples feature in the subsequent business sections. Several other projects deserve to be highlighted here.

Eradicating child labor

LDC's global Code of Conduct states that we will not tolerate child or forced labor anywhere in our supply chains. Given that such labor mostly occurs at farm level, and that our only farms are citrus groves in Brazil, we have to work particularly hard to identify and remove such practices from our supply chains.

The approach taken by our Cotton Platform in Uzbekistan is an excellent example of our collaborative approach and the positive outcome that can result.

Following a complaint by an NGO in 2010 that cotton production in Uzbekistan often used child labor, LDC and other stakeholders in the Association of Cotton Merchants in Europe (ACME) worked with the International Labour Organization (ILO) to persuade the Uzbek government to take action.

After a series of meetings and persistent lobbying by LDC and other ACME members, the Uzbek government granted the ILO unfettered access to monitor the country's cotton harvest in 2013. In parallel, ACME and LDC joined the Child Labour Platform, a new collaborative initiative established by the ILO and the UN Global Compact to eradicate child labor in global supply chains.



Having discovered poor practices in Uzbekistan, the ILO set up a program in 2014 to eliminate these in partnership with the Uzbek government, supported by LDC and other ACME members through the ILO and the Child Labour Platform.

As a result of these combined efforts, the ILO has an ongoing, productive, consultative relationship with Uzbekistan and, by 2018, was able to report that “child labour is no longer a major concern”¹ and will continue to monitor to ensure that this continues.

We apply this collaborative approach beyond Uzbek cotton. Following concerns raised recently about child labor issues in Burkina Faso's cotton harvests, we will seek ways to replicate ACME's joint success with the ILO, while continuing to partner with Cotton Made in Africa to verify all cotton purchased from the country.

¹ Major progress on forced labour and child labour in Uzbekistan cotton fields (ILO, November 2018), retrieved from https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_650697/lang-en/index.htm on 1 April 2019

Code of Conduct – we will not tolerate child or forced labor anywhere in our supply chains

Our Rice Platform has its own concerns over the lack of visibility of labor practices at farm level, given its leading position as a purchaser of Asian rice, mostly in bulk, from wholesalers and local traders. In 2019, we will conduct our own due diligence on labor practices throughout our rice supply chain.

Soft Commodities Forum

In 2017, LDC joined the World Business Council for Sustainable Development, the organization uniting global businesses in pursuit of sustainability goals, and became one of the founding members of its Soft Commodities Forum (SCF).

One of the SCF's first significant initiatives relates to conserving the Cerrado biome – an incredibly important ecosystem in South America that is under threat from rapidly expanding agriculture. As part of our commitment to help feed the world's growing population sustainably, we have helped the SCF to develop a response.

As explained in the soy-specific section of this report (see page 55), from the 2018 harvest onwards, as SCF members we commit to report publically every 6 months on the percentage of soy sourced in the Cerrado, with the first report published in June 2019.

Bonsucro

We continue to support the efforts of Bonsucro to increase adoption of its standards and practices for the sustainable production of sugar. All relevant LDC facilities and trading entities are Bonsucro certified. Since we do not grow sugar, we take steps to promote Bonsucro to our suppliers and seek to merchandize Bonsucro-certified sugar wherever possible.

2018 Stakeholder engagements

The table below outlines how we work with stakeholders, as well as some great examples of successful outcomes:

Stakeholder	Type of Engagement	Main Issues	Examples / Areas of Interaction
Customers	<ul style="list-style-type: none"> Meetings Internet 	<ul style="list-style-type: none"> Certification Project development 	Project with JDE & others →p51
Suppliers	<ul style="list-style-type: none"> Meetings Forums 	<ul style="list-style-type: none"> Codes of conduct Environment Human rights 	Palm suppliers →p44 Soy suppliers →p54 Training farmers →pp41, 48, 51 & 53
Financial community	<ul style="list-style-type: none"> Meetings Regular calls 	<ul style="list-style-type: none"> Annual and semi-annual progress discussions 	ING interaction →p35
NGOs	<ul style="list-style-type: none"> Meetings Calls 	<ul style="list-style-type: none"> Campaigns Progress reports Meetings Roundtable discussions 	Nature Conservancy feedback →p33 Louis Dreyfus Foundation relationship →p36 Sustainable Trade Initiative →p53
Employees	<ul style="list-style-type: none"> Intranet Forums 	<ul style="list-style-type: none"> Diversity and inclusion Safety training 	Diversity study →p20 Choosing community projects →p36
Communities	<ul style="list-style-type: none"> Open days Volunteering 	<ul style="list-style-type: none"> Health Education Nutrition 	Community projects →p37 Developing soy logistics →p55
Peers	<ul style="list-style-type: none"> Meetings Calls 	<ul style="list-style-type: none"> Pre-competitive collaboration opportunities 	Soft Commodities Forum →p31
Multilateral bodies	<ul style="list-style-type: none"> Meetings Forums 	<ul style="list-style-type: none"> Human rights Environment 	Soft Commodities Forum →p31 UN feedback →p34
Donors	<ul style="list-style-type: none"> Calls Meetings Field visits 	<ul style="list-style-type: none"> Project design and implementation 	IDH partnership on Vietnam project →p51

Views from our stakeholders



David Cleary
Global Agriculture Director,
The Nature Conservancy



Working with LDC on soy: the conversion conversation



I lead The Nature Conservancy's work on deforestation, and one of the challenges I face is managing my CEO, who looks at global deforestation figures and sees that we don't seem to be making much progress: the headline figure has been quite stable for years, when we need to see it going down.

Like all global averages, that undeniably depressing fact conceals as much as it reveals. In some places we have made progress, in other places we are losing ground, and that is often down to large social, economic and political trends that even large companies like LDC and large NGOs like The Nature Conservancy can only influence to a limited extent. But not always. Sometimes, as history has often shown, individuals – and individual companies - can make a difference.

We had an intense conversation with LDC this year around soy, which led to what I regard as an industry-leading company soy policy. Funnily enough, what makes it industry-leading is that it shifts the conversation away from deforestation.

One of the challenges we face, as a conservation organization, is the unintended consequences of deforestation commitments. Brazil is the best example of it. The Amazon, which dominates northern Brazil, is right next to the Cerrado, a mixture of savanna, woodlands and forests, and where most of Brazilian soy is grown. Both, from our standpoint, are globally significant conservation targets. But if a commitment to protect the Amazon only displaces pressure to destroy habitat to the Cerrado, rather than eliminating that pressure, it's not a win for us. It condemns us to playing whack-a-mole, as pressure to convert habitat shifts from place to place, in a world of mobile capital, adjustable supply chains and constantly expanding demand for commodities.

So for some years we have been working to advance the deforestation conversation to a conversation about conversion: an integrated approach to managing land use that goes beyond just forests to the conversion of all natural habitats. This does not mean freezing agriculture's footprint, but rejigging it.

Once again, Brazil is the best example: in the Cerrado, a number of very credible studies show there is roughly 25 million hectares of land already cleared that is suitable for soy. Most of that land has been cleared for pasture and some of it is marginal land that with the right interventions can be reclaimed for production. It's not difficult to game a win-win future: expand soy into pasture, increase grazing efficiency to minimize displacement of ranchers, and (the really challenging piece) unlock the large amount of transitional funding necessary to help farmers move towards zero conversion direction.

LDC's new soy policy, released in 2018, was the first move by a major trader towards a zero conversion approach. There's a sense in which that was the easy part: as with any policy, implementation is the real test. But LDC deserves great credit for converting to conversion first, setting that vital example which makes it easier for others to follow, as they are. We look forward to working with LDC in the years ahead on the hard part – making it happen.

Fabrice Houdart
Human Rights Officer,
United Nations
Office of the United Nations
High Commissioner for
Human Rights (OHCHR)



Geert Bierman
Director, Commodity Finance
ING Group



LDC and diversity

There is growing awareness of the plight of Lesbian, Gay, Bisexual, Transgender, and Intersex (LGBTI) people and the crucible of human rights violations they face around the world.

The International Lesbian, Gay, Bisexual, Trans and Intersex Association (ILGA) records¹ that in 70 countries, people can still be arrested for consensual same-sex relations, in 9, it is punishable by death and in 17 countries, bans are in place to prohibit portraying of same-sex relations and LGBTI culture. An estimated 2.8 billion people – or 37% of the world population – live in these areas. Unfortunately, these laws are only the tip of the iceberg as LGBTI people face human rights violations everywhere including in areas with the most progressive legal frameworks.

In 2019, as we mark the 50th anniversary of the Stonewall riots, an uprising widely credited with sparking the modern LGBTI rights movement, we celebrate the tremendous progress achieved. Yet, if we are to keep such momentum, consolidate these gains and expand them globally, it will require the active involvement of all parts of society – including, critically and increasingly, the business community.

Indeed, the decisions that companies take – whether in respect of human resources, investment, supply chains and marketing – have a real and, in some cases, profound impact on human rights of LGBTI people.

This potential is the reason why the United Nations Human Rights Office felt the need to translate the United Nations Global Compact, of which LDC is a signatory² since 2010, and the United Nations guiding principles on business and human rights into standards on human rights of LGBTI people. After global consultations with all stakeholders, OHCHR launched the Global LGBTI Standards of Conduct for business³ in September 2017.

The five standards can be summarized as:

- **Respect** the human rights of their LGBTI workers, customers and members of the public;
- **Eliminate** workplace discrimination against LGBTI employees;
- **Support** LGBTI employees at work because having the right policies in place is useless if nobody comes out;
- **Prevent** discrimination and related abuses against LGBTI customers, suppliers and distributors – and insist that suppliers do the same;
- **Stand up** for the human rights of LGBTI people in the communities where companies do business.

The language in the document is not prescriptive. It does not say that companies must do everything everywhere. What it does is encouraging them to find their voice on the human rights of LGBTI people and continue on the journey they are on.

In 2018, Louis Dreyfus Company expressed publicly its support for these Standards. In doing so along with 250 of the World's largest companies, it sends a powerful signal that the private sector believes it has a stake in human rights of LGBTI people. Imagine the power that these companies have in inspiring and empowering people starting with their own workforce to stand up for equality.

This is not only the right thing to do but is also the smart thing to do. The business and economic case for inclusion has never been so well articulated. In short inclusive societies and companies fare better.

We are grateful to Louis Dreyfus Company for leading by example. It is our hope that many others will join LDC in creating a true private movement for social change on human rights of LGBTI people.

Everyone is entitled to live free and equal in dignity and rights. And the LGBTI equality movement needs the help of all companies irrespective of their size, location or industry to join the global movement for a world where all LGBTI people can find their right place in the humanity they belong to.

Empowerment for Sustainable Growth

ING's purpose is to empower people to stay a step ahead in life and in business. Sustainability is an inherent part of that.

With more than 38 million customers in more than 40 countries, we believe our role is to finance and facilitate society's shift to sustainability. In other words: contribute to progress – environmental, economic, and social. As a global bank, our greatest impact is through the ways we channel the flow of money entrusted to us.

We make a difference with what we do finance, such as the billions of euros in energy projects we've done. These range from wind farms, solar energy, and geothermal power production; to energy efficiency in buildings and production lines; to electric vehicles and bio-based plastics; to (waste) water treatment and supply and circular economy solutions. We do this through green loans, green bonds, and other innovative products and financing constructions.

We make a difference with what we don't finance. Every client and transaction is assessed, monitored and evaluated against the requirements of our Environmental and Social Risk (ESR) framework to ensure compliance and limit negative impact on the environment and communities. This way, climate and environmental impact are taken into account every time we make financing or investment decisions. We also say 'no' to certain companies and sectors, like with our aim to reduce our exposure to coal power generation to close to zero by 2025.

We also make a difference when we respond to financing requests with "yes, but...", outlining sustainability improvements the client must make first. As we assess potential clients and deals, our approach is to have a dialogue and support them in improving their environmental and social impact where possible. We believe this is more effective than excluding clients altogether. Of course if they don't meet our standards and aren't willing to change, we don't do the deal.

We pride ourselves on financing sustainability leaders and actively seek to cooperate with our clients to further improve their own operations and larger supply chains with regard to these topics.

In Louis Dreyfus Company we find a very committed partner in this journey. Few multinational companies have such a thoroughly felt drive to improve all aspects of their operations and supply chain by using their global position to do the right thing. Louis Dreyfus Company assists farmers, local communities, logistical partners and clients and thereby contributes to ensuring that a growing world population has access to healthy nutrition.

We are proud of the discussions we have with Louis Dreyfus Company on ways commodity merchants can work with financial institutions to further improve the human rights of all involved in the supply chain, especially in the more vulnerable countries. We also take pride in our role in structuring the sustainability aspects of the first syndicated lending facilities to Louis Dreyfus Company that has tangible sustainability KPIs embedded in it. The core of these KPIs, focussing on reducing energy use, water use and disposed waste, perfectly fit with ING's focus areas of energy transition, water and the circular economy.

With such a strong match between Louis Dreyfus Company and ING, we look forward to a future where fruitful cooperation on sustainable initiatives will only grow further!

¹ <https://ilga.org/ilga-map-sexual-orientation-laws-2019>

² <https://www.unglobalcompact.org/what-is-gc/participants/11842-Louis-Dreyfus-Company>

³ <http://unfe.org/standards>

Our communities



Working with local experts, we want to contribute to the Sustainable Development Goals (SDGs) related to education, poverty, health and life on earth.

Working with local experts, we want to contribute to the Sustainable Development Goals (SDGs) related to education, poverty, health and life on earth. We do this by creating jobs, protecting the environment, training and educating communities, and supporting health projects.

Impact in partnership
As well as encouraging any of LDC's 18,000 employees to propose initiatives for local action across over 100 countries, our people can submit projects for support from the Louis Dreyfus Foundation.

The partnership between LDC and the Foundation allows both organizations to multiply impacts in a common area of work: supporting smallholder farmers in improving their livelihoods through more sustainable farming.

LDC's collaboration with the Foundation will continue and increase over the coming year, with the objective that all Foundation projects be defined through the local expertise of LDC people, complementing LDC's own community programs.



LDC projects in 2018



Farmer training center in Gurugram

At the end of 2018, we opened a training and information center for farmers in Gurugram, in India's state of Haryana, where poor social and economic conditions, and a lack of technical knowledge, have hampered farmers in making the most of easy access to nearby Delhi and Gurugram city markets.

Built near our India office in Gurgaon, the center will train farmers in new crop technologies and efficient irrigation methods, aiming to increase yields and incomes sustainably. It will also provide information on markets, weather forecasts, and pest and disease control. Operated by the District Horticulture Office (DHO) in Gurugram, the center will provide a foundation for horticulture development in the region.



Meals for schoolchildren in Vipingo

Timboni Primary School is a government school in Vipingo, Kilifi County, near our logistics facility in the port of Mombasa, Kenya. Founded in 2016, the school has 1,300 pupils, mostly from local smallholder farming families.

With local children often eating only one meal per day, feeding its pupils is one of the school's priorities, but it lacks the funds to do this. LDC decided to set up a healthy breakfast program for the pupils to provide food for the children. The program includes occasional lessons on hand sanitation and first aid, to be delivered by LDC volunteers.

Following planning and preparation in 2018, the program will launch in 2019. We also hope to develop the relationship with the school, to launch a mentoring program and provide other financial support.

At LDC, we empower our people everywhere to create positive change locally and globally, in the communities where we operate.

Supporting education in Wittenberg

In the context of LDC's global 2018 Safety, Health & Environment Day, the team at our oilseeds processing facility in Wittenberg, Germany, took steps to support education and training in the area.

As part of a longer-term plan to promote safe and healthy lifestyles in Wittenberg, our teams supplied local primary schools with books on healthy eating, donated funds to the local youth football club, and provided personal protective equipment to the town's schoolchildren and youth fire fighters unit.

Projects with the Louis Dreyfus Foundation in 2018



Louis Dreyfus
Fondation d'entreprise

Improving livelihoods in Marajó Island

Communities along the Urinduba and Araraiana Rivers, near LDC's future terminal on Marajó Island, in Brazil's State of Pará, have limited financial resources and poor access to many basic services.

Our project with the Louis Dreyfus Foundation aims to strengthen their productive capacity, especially in growing açaí fruit, by helping them to work together for the benefit of the whole community. This involves helping them to organize their work better, training them and providing ongoing technical support.

The communities each selected three açaí producers to visit the nearby Canaticú cooperative, to observe best practices and understand how they might apply these in their own community. The exchange visit was followed by two workshops involving specialists from Canaticú, during which the communities developed an area in their respective regions in which to test new management and farming techniques.

With the aim to improve productivity, quality and profitability, technical support will continue through 2019, helping producers as they learn better açaí production, and demonstrating its effectiveness to others.

Building on learning from Canaticú, the next step will be to establish an "Açaí Port" in each community, as a single hub to market the fruit, each run by a board elected by the community.



Sustainable micro-farming in Rurópolis

Communities in Santarenzinho and São Raimundo in Rurópolis city, also in Brazil's state of Pará, face similar challenges to those near Marajó Island (see above). Our approach here, however, has been to develop 8 micro-farming systems to help increase production, sales and incomes sustainably.

The project comprises 36 families, with 164 beneficiaries in total. Each family receives a tailored plan, and training on finance, management and agricultural practices to help them implement it. We also helped them buy initial inputs and will continue to provide technical advice.

A group representing 16 community and governmental organizations managed the project set-up and governance, including selecting the beneficiaries. This approach ensures close adherence to community needs and builds collaboration and capabilities within the community itself.

With half of the training delivered to date, families are already seeing benefits such as improved product quality, sanitation and environmental conditions, allowing them to access new markets in the area.



Vocational agri-school in Ivory Coast

This project to provide high quality agricultural education to 30 young people annually in the Savanes district of northern Ivory Coast commenced in 2018.

Although agricultural development is a government priority in the country, this rural district lacks accessible education centers. By building a school, and helping to set up its management and curriculum, LDC and the Louis Dreyfus Foundation hope to encourage young people to participate in the agricultural sector, while embedding innovative, sustainable farming methods locally.

The project team has so far engaged with the local community, met a range of stakeholders and set up the management group. Feedback has been enthusiastic, with a shared vision for economic development in the district.

With feasibility and opportunity studies completed, and a site for the school identified, the next steps are to select suppliers to design and build the facility, aiming to open the school by the end of 2019.



Agroforestry for the environment in Itatinga

Near our citrus farm in Itatinga, São Paulo state, Brazil, LDC employees realized that with the support of the Louis Dreyfus Foundation, local families could improve their income while recovering degraded land through an agroforestry initiative in partnership with the University of São Paulo (UNESP).

Starting with 13 families, experts from LDC and UNESP trained people to grow food in a way that not only improves nutrition and generates additional income, but also benefits the local ecosystem by restoring biodiversity. Beneficiaries are given the trees, vegetables and seedlings necessary to implement the agroforestry system,

and trained to protect local vegetation by avoiding the use of chemicals. We have also built logistic capabilities for product delivery to schools and street markets.

To date, the initiative has 58 beneficiaries, and 5,000 trees (including many native species) were planted in addition to a variety of vegetables. Soil quality is gradually improving, people's diets are diversifying and their capacity to supply new markets is increasing.

We will continue to monitor environmental and social outcomes with existing beneficiaries, with the next step being to double the project's reach.

Resilience to climate change in Ethiopia

LDC employees are working with the Louis Dreyfus Foundation and Inter Aide to help farmers in southern Ethiopia address three main challenges:

- Intensifying and diversifying production
- Preserving soil and farm resources
- Coping with the impacts of climate change

The project's innovative approach combines fodder production with soil and water conservation, complemented by a range of solutions such as agroforestry and farmer seed autonomy. This protects soil fertility and leads to productive capacity and food security.

In 2018, our work benefitted 900 farmers, whose farms are now planted for fodder production and protected by 120km of newly built anti-erosion structures. Other benefits in 2018 include:

- 1,200 families diversifying their resources for fodder
- 510 farmers improving soil fertility with green manure
- 610 farmers producing and conserving quality potato seeds
- 98,000 trees planted

The objective for 2019 is to extend these practices to new beneficiaries, under the expert supervision of Inter Aide.



510
farmers improving soil fertility with green manure

Agroforestry for sustainability in Ethiopia and Uganda

Coffee accounts for 90-100% of farmers' income in the Southern Nations, Nationalities and People's Region of Ethiopia, but shifting weather patterns due to climate change are expected to reduce production by 50% by 2050, and are already affecting yields.

Since 2014, the joint project between LDC, the Louis Dreyfus Foundation and social business PUR Projet has helped over 2,300 smallholder coffee farmers operate more sustainably and with greater resilience in the face of climate change impacts through agroforestry, planting 159,000 trees for fruit, timber and shade.

The need for timber connects to a health issue related to cooking, which is traditionally done over a fast-burning wood fire. This demands time to watch the fire, generates harmful smoke and consumes timber quickly, putting pressure on forests. So in addition to growing further trees, the initiative is building efficient, safe cooking stoves.

In 2018, the project was expanded to the Rwenzori region of Uganda, targeting smallholder members of the Rwenzori Farmers Cooperative Union who face challenges posed by the lack of shade for coffee plants and struggle to manage their operations.



"I got the improved cook stove in July 2018, because I used to have eye problems due to the smoke produced by the three-stone fire. I am very happy about it! Now, I don't have any eye problems anymore and I discovered many other benefits. I save a lot of wood, I cook faster and it is safer for my 8 children as it cannot fall over. I also noticed that the smoke that goes out of the cook stove chimney keeps away flies that are harmful for my beehives."

Marta Otiso, Ethiopia

The joint project brought its comprehensive sustainable coffee farming training curriculum to Rwenzori, with 10 modules covering everything from land preparation to post-harvest practices, and has already benefitted 800 farmers.

Tree planting has commenced, with over 50,000 trees already planted to date. We are also helping to rejuvenate coffee plants, with new plants provided to 33 farmers in 2018.

Having helped 150 families with cooking stoves in Ethiopia, this part of the project is just starting in Uganda.



"I am very satisfied with the shade trees I received, even comparing inside my farm, well shaded coffee trees are healthier than the ones in full sun. Many farmers come to see my parcel, they are often surprised with the coffee variety. They find it inspiring."

Zemenay Birani – Fura cooperative, Ethiopia



Platform insights

44
Palm

48
Juice

50
Coffee

52
Cotton

54
Soybeans

58
Freight



Palm

Palm oil is the most widely used vegetable oil for various reasons, including its versatility and yield, four to ten times higher per hectare¹ than any other oil. Some estimates put demand for vegetable oils in 2050 at double today's levels,² and palm oil production is expected to quadruple in the same period.

The challenge is to meet that demand responsibly, avoiding deforestation and destruction of high carbon stock and high conservation value ecosystems for palm cultivation.

Palm oil being an essential source of revenue for many farmers, for LDC this is a prime example of the challenge to deliver value fairly and sustainably. That's why we choose to address the issue through partnerships with multiple stakeholders, balancing competing needs expressed in SDGs on zero hunger (SDG 2) and responsible consumption and production (SDG 12), by aiming to:

- **Preserve forests in their vital role in our global ecosystem**
- **Maintain and encourage biodiversity**
- **Help local communities to develop through access to higher incomes**
- **Prevent displacement of communities that live in forested areas**

LDC palm policy

Having launched our No Deforestation, No Peat, No Exploitation (NDPE) policy in 2016, our efforts since then have been to raise awareness among, and secure adoption by, our suppliers.

With no plantations of our own, we source palm oil to merchandize in two main ways:

- We receive palm from third party mills at our refineries in Indonesia, which refine and sell the oil to customers.
- We purchase palm oil from other third parties, which we sell on to customers through our commercial office in Singapore.

With this approach, we interact with a large range of different operators, and palm oil purchases by our Singapore teams often involve several intermediary entities between the mill and ourselves. We treat this as an opportunity to seek adoption of our policy, to influence supply chains, and to trace palm oil back to mill level.

Targets 2018

Integrate LDC palm policy into major contracts	Produce and maintain detailed risk assessments of all main suppliers	Trace 90-100% of palm supplied to us back to the mill	Publish list of mill suppliers
Completion: 2018	Completion: 2018	Completion: 2018	Completion: 2018
Status: Completed	Status: Completed	Status: Completed	Status: Completed

Traceability and transparency

Traceability is crucial to encourage improvement in supply chains. Recognizing this, since 2017 we have pushed to trace 100% of our palm oil back to mill level, irrespective of how we secure it, and to report on it. That in itself is unusual in an industry where several operators do not report traceability scores for commercial trading activities.

Our efforts with Earthworm Foundation (formerly known as The Forest Trust) involve gathering and verifying GPS coordinates from all entities in our supply chain back to, and including, mill level. We publicly report these results every six months.

In 2018, we hit our target to achieve 90-100% traceability overall and, in the second half of the year, our Singapore team achieved 90% traceability for its external trading book compared to 66% in 2015. These achievements demonstrate the impact we can have by working with others toward collective goals.

In 2018, we also expanded the range of data we publish, allowing others to hold us to account and adding:

- Lists of all mills supplying us with palm oil
- A breakdown of purchases by LDC division, origin and product
- Our grievance protocol and list of grievances



Supplier engagement

Our work to ensure that all suppliers understand, adopt and comply with LDC policy has multiple streams.

One of these was to launch the Tools for Transformation Process (T4T) with Earthworm Foundation this year, running training workshops for suppliers to LDC refineries.

In 2018, 35 representatives of mills supplying LDC refineries participated in a workshop on details of our policy and NDPE commitment. Suppliers then completed detailed questionnaires, to analyze the profile of their operations and highlight areas of potential concern. Subsequent workshops, which we aim to hold in 2019, will cover the technical elements of our sustainability policy, such as definitions and standards for High Conservation Value and High Carbon Stock.

In parallel, we continue to engage suppliers with a raft of measures established in 2017:

- Screening all new suppliers for sustainability risks
- Ongoing risk assessments using Global Forest Watch and other tools
- Embedding our policy into major contracts that were not already covered by a supplier NDPE commitment and are considered high risk
- Operating our engagement and grievance process where there are allegations of non-compliance with our policy
- Engaging suppliers with on-site field visits, such as those we completed with Earthworm Foundation in Indonesia and Guatemala

LDC Traceability Progress 2015-2018

Indonesia Refineries

H2 2018	100
H1 2018	100
H2 2017	100
H1 2017	100
H2 2016	100
H1 2016	100
FY 2015	100

Singapore Commercial

H2 2018	90
H1 2018	89
H2 2017	87
H1 2017	86
H2 2016	75
H1 2016	79
FY 2015	66

Global

H2 2018	94
H1 2018	93
H2 2017	92
H1 2017	92
H2 2016	85
H1 2016	91
FY 2015	81

¹ RSPO, A Shared Vision – 100% Sustainable Palm Oil in Europe: A Snapshot of National Initiatives, 2015
² ibid.



Certifications obtained by LDC Palm:

- RSPO
- ISCC
- Good Manufacturing Practice (GMP+B2 and B3)
- Food Safety System Certification 22000
- ISO9001
- Halal
- Kosher

We also upgraded our analytical capabilities in supplier profiling in 2018, adding data on land ownership and concessions held by each supplier. We completed risk assessments of our main suppliers and continue to maintain and improve these, and will do the same for new suppliers as we add them.

As explained in previous reports, including our policy in all contracts is ideal but extremely difficult, for instance in the case of spot or one-off purchases. We will therefore continue with our approach to incorporate our policy to the extent possible, especially where suppliers have no NDPE policy of their own. However, given our progress in traceability and transparency, this work is now an integral part of our risk profiling rather than an independent workstream with its own time-bound target.

Managing allegations and grievances

As mentioned above, our grievance process serves to deal with cases where a supplier is said to have violated LDC policy. We review the allegations and publish updates on our website to allow feedback on our approach.

We believe this process sets a rigorous standard for several reasons. Firstly, if an issue is raised about one mill or plantation, we assess the whole supplier to group level. Secondly, if a decision is taken to remove a supplier from our approved supplier list, LDC will neither buy from, nor sell to, that company. Thirdly, removal from our approved supplier list for palm-related grievances means that LDC no longer trades with that company for palm or any other products. Lastly, resuming trade with LDC is allowed only when suppliers prove they are addressing grievances.

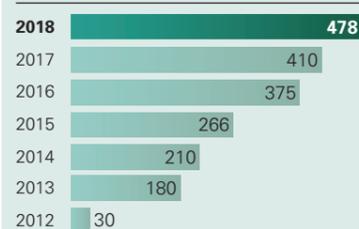
The list of suppliers that have been subject to our grievance process, and the decisions taken as a result, are published on our website every six months.

Certified sustainable palm

LDC continues to source and sell palm oil that complies with Roundtable for Sustainable Palm Oil (RSPO) and International Sustainability & Carbon Certification (ISCC) standards, as part of our ultimate goal: No Deforestation, No Peat, No Exploitation.

In 2018, we were able to increase certified palm oil sales by 17% year-on-year, and by 1500% compared to 2012.

Sold volumes (MT)



Certification is and will remain an important tool, but it is only one of many to ensure our sourcing is sustainable, especially since sales volumes depend heavily on customer demand.



2019 and beyond

Driving traceability remains a high priority, and we are working with suppliers to our refineries to develop a methodology to achieve traceability to plantation level, for which a pilot is underway. This will be supported by remote sensing monitoring, especially for direct suppliers to our refineries.

Building on the T4T work commenced in 2018, we will work with Earthworm Foundation to expand the training program on both existing and new subjects, where a need is identified. Our objective is to drive further engagement, as we continue to apply our verification, monitoring and grievance processes toward our primary NDPE goal.

In partnership with the Louis Dreyfus Foundation and one of our suppliers in South Sumatra, Indonesia, a new project will begin in 2019 to support the resilience and sustainability of smallholder farmers in the country, who account for approximately 40% of palm plantations by area³ and yet often have the lowest yields.

Given the imperative to produce more palm oil without deforestation, training these farmers, helping them to improve yields sustainably and facilitating their access to certification will be crucial. Partnering with a supplier allows us to reach farmers with whom we have no direct contact in our palm operations. If this pilot project is successful, we plan to replicate it in other geographies. We will report on this project in our next report.

3 IUCN, 2018

New Targets

Trace 90-100% of the palm supplied to us, back to the mill

Target: 2019

Maintain detailed risk assessments of all our main suppliers

Target: 2019

Conduct and sponsor at least 2 technical workshops on NDPE commitments with key suppliers

Target: 2019

Develop methodology for traceability to plantation level for high risk areas

Target: 2019

Report publicly twice-yearly on traceability, mill lists and engagements conducted through the LDC grievance process

Target: 2019



Juice

LDC's Juice Platform is the third largest producer and merchandizer of juice worldwide, and in 2018 celebrated 30 years in the business.

From our 38 citrus farms in Brazil, through to our juice merchandizing activities in destination markets around the world, we have built sustainable solutions into our operations across the value chain.

In accordance with LDC's collaborative approach, we work closely with many stakeholders to address issues relating to:

- **Decent work & economic development – creating jobs, training our people and keeping them safe**
- **Deforestation, conversion & biodiversity – preserving indigenous wildlife around our facilities**
- **Responsible production & clean water – reducing water consumption and minimizing the use of crop protection and phytosanitary products**

Our 2018 Juice Sustainability Report outlines our efforts in detail, with several highlights included here.

Safety, quality and agricultural best practice

Employing approximately 8,000 people at peak season, primarily in Brazil, involves a massive commitment to training in order to run our operations as safely and efficiently as possible.

In 2018, the Juice Platform delivered over 1,600 training sessions covering a range of safety, quality and agricultural best practice topics. These included:

- 370 sessions for over 3,100 employees on our Agricultural Quality Management System
- 169 training sessions for 1,239 employees to fully implement our Industrial Quality Management System at our sites

- Multiple internal Work Accident Prevention Week sessions, with over 1,400 participants
- Our annual, global Safety Day (see page 19), with the theme "Our safety is my priority", and regular Safety Dialogue meetings with industrial and farm teams to reinforce safety procedures and best practice
- Weekly farm safety reviews, raising awareness among farm teams and involving them in identifying improvement opportunities
- Environment Week, Quality Week and Workers' Week at our processing and logistic sites, recognizing successes and raising awareness
- Agricultural technical meetings, reaching 500 employees on best practices in agriculture, pest control, leadership and Rainforest Alliance standards
- Not From Concentrate (NFC) field days and workshops, focused on improving fruit quality through collective discussions among harvest, plant fruit reception and origination employees

We also continue to operate our Programa Compartilhar to share our know-how with external partners and third party fruit suppliers, including training on LDC policies and sustainable production methods. 120 people were trained in 2018, including 78 suppliers who represent 70% of our fruit supply from third parties.

We also run an environmental education program that brings local schoolchildren, more than 1,200 in 2018, to visit our farms, with training, farm tours and seedling planting activities organized for them.

Targets 2018

Secure Rainforest Alliance certification for 14 more farms

Completion: **2018**

Status: **Completed**

Secure Rainforest Alliance certification and Sustainable Agriculture Initiative Platform Gold Grade recognition for 29 farms overall

Completion: **2018**

Status: **Missed**

Certified sustainable

Seeking Rainforest Alliance certification is an excellent approach to meet responsible production goals in the juice value chain.

Our operations are Rainforest Alliance Certified™ at two levels: farm-level certification and chain of custody certification, with strict standards covering:

- Effective planning and management
- Biodiversity conservation
- Natural resource conservation
- Improved livelihoods and human wellbeing

Chain of custody

To ensure supply chain traceability from LDC farms certified by the Rainforest Alliance, our processing plants in Matão and Bebedouro, our Santos port terminal, and our destination terminal in Ghent, Belgium were all certified between 2015 and 2016.

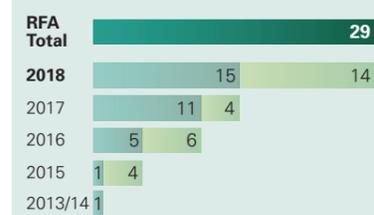
A dedicated Group Administrator ensures that all certified sites meet Rainforest Alliance standards at all times. A comprehensive resource management plan is also in place to reduce GHG emissions and water and energy consumption, manage solid waste and minimize the use of any potentially toxic crop protection products, in line with the strict list of products permitted under the scheme. We also leverage Rainforest Alliance frameworks to work with local communities, for instance by expanding our environmental education program.

In recognition of this work, 22 farms were validated in 2018 as Gold Grade according to the Sustainable Agriculture Initiative Platform's (SAI Platform) standards. This means they have attained the highest SAI Platform standard using its Farm Sustainability Assessment evaluation tool, which creates a single, global standard based on multiple sustainability schemes. While we missed our target to achieve Gold Grade at 29 farms, the remaining 7 attained Silver, which remains a good achievement. We have renewed our target to achieve Gold in 2019.

Farm-level

We met our target to certify 14 additional LDC citrus farms in 2018, bringing the total to 29 overall, which represents 80% of all the farms we manage. We are now working to certify the remaining 9 farms.

Expansion of Rainforest Alliance Certified™ farms in the last 5 years



Biodiversity and conservation

Beyond certification, LDC takes great care to preserve wildlife and biodiversity. As previously reported, we are in the process of creating Biodiversity Protection and Conservation Plans for each of our juice farms, with detailed measures to:

- Control invasive species
- Reduce road traffic in the area
- Conserve soil
- Educate employees
- Monitor emissions from farm equipment
- Create ecological corridors between forest areas

29 farms now have plans in place, with approximately 9,100 hectares marked for conservation. 80% of this land is designated for medium or advanced conservation, which entails great benefits for wildlife, such as feeding and breeding areas for animals. We are in the process of developing the remaining plans.

2019 and beyond

Over the next year, we will examine next steps for Rainforest Alliance certification and biodiversity plans for the farms that do not yet have them, and have a goal to reach SAI Platform Gold Grade at seven farms.



Coffee

Coffee generates incomes for millions of people. Many of them are smallholder farmers in remote rural areas, who produce more than 70% of global exports amounting to over US\$20 billion annually.¹

Owing to the reality of climate change effects, however, production is becoming more difficult for farmers to the extent that it may be below current levels by 2050.²

As a leading merchant of green coffee, we are well placed to help smallholder farmers address the challenges they face, and make their production more sustainable and profitable. This contributes to achieving SDGs on:

- Economic development
- Alleviating poverty
- Protecting life on land
- Climate change

Merchants in LDC's position who source from thousands of smallholders, often through numerous intermediaries, have complex supply chains and face increasing demand for traceable, responsibly-produced coffee from end consumers.

And with multiple certification schemes available, roasters treat responsible sourcing as a must, meaning the market is unwilling to pay a premium for certification.

Sustainability and traceability are therefore prerequisites to operate in coffee.

Responsible sourcing at LDC: a holistic approach

Guided by its purpose of fair and sustainable value creation, LDC chooses to go beyond certification in approaching these complex issues, by working directly with smallholder farmers. By means of initiatives addressing specific local issues, we aim to increase their income and productivity through sustainable practices.

Our responsible coffee sourcing program takes a holistic approach with three complementary streams:

- 1 Boosting production of certified and verified coffee
- 2 Supporting coffee farmers through projects tackling specific local issues
- 3 Sourcing responsibly from farmers who adopt environmentally, economically and socially sustainable practices, irrespective of verification or certification

Aiming to be as transparent as possible about this approach, we published our first Coffee Sustainability Report in 2018 with details on our work in this area. The report is available on our website, and we have included an overview in this chapter.

Stream 1: Certified and verified coffee

Despite the challenges posed by the proliferation of certification schemes, they remain one of the most powerful indicators of sustainability in the coffee industry, in response to increasing consumer demand particularly among millennials in North America and Western Europe.

Certified and verified sustainable coffee therefore remain a focus for a significant portion of our sourcing. At the same time, owing to the shift of focus for the industry outlined above and to the headway we are making in our other two streams of work, we have decided to discontinue our formal sales targets for certified and verified coffee.

Targets 2018

Increase the volume of certified coffee we sell to 17%	Set and publish targets for our responsible sourcing program
Completion: 2020	Completion: 2018
Status: Removed	Status: Amended

New Target

Set and publish targets for our responsible sourcing program
Completion: 2019

Stream 2: Supporting farmers through projects

In order to make global supply more sustainable, we need to reach more farmers than we can if we focus exclusively on certification. Our projects working directly with farmers in the field, such as those in Vietnam (see below) and East Africa (see page 41), allow us to extend our reach to farmers for whom certification may not be accessible.



Stream 3: Sourcing responsibly grown coffee

Sourcing responsibly grown coffee is a natural continuation of our first two streams. We want all our coffee to be traceably and responsibly sourced. By seeking to source certified or verified coffee, and supporting smallholder farmers directly, we encourage sustainable practices throughout the value chain and therefore build up the supply of responsibly produced coffee.

Launched in 2015, our Supplier Code of Conduct is the key driver of this work stream, covering human rights, health & safety, environmental and business integrity issues (such as anti-bribery measures). Farmers are expected to commit to improve their practices in these respects and, from the beginning of 2019, we have introduced measures to create specific, corrective action plans where a supplier is found to have breached the Code of Conduct.

Looking ahead

In 2019 we will focus on building up our sustainable sourcing program and complementary projects to support smallholder farmers. We have amended our target to publish specific, time-bound targets for our responsible sourcing program, realizing that we are too early in the process to launch the program as a formalized system. We now aim to establish specific targets by the end of 2019.

Promoting sustainable land management in Vietnam

LDC has partnered with the Sustainable Trade Initiative (IDH), Jacobs Douwe Egberts (JDE) and Syngenta since 2016, through the Initiative for Sustainable Landscape Approach (ISLA) in Lam Dong, Central Highlands, Vietnam.

Between 2016 and 2018, the initiative trained 2,500 farmers to adapt to climate change, helping to make them more resilient, productive and environmentally sustainable. Its success has led the partnership to extend the program until 2021. The aim is to reach a further 3,000 farmers who produce approximately 18,000 tons of coffee annually from 4,800 hectares of land in the country's Đắk Lắk, Đắk Nông and Gia Lai provinces.

Covering topics such as soil regeneration, irrigation, intercropping for biodiversity, growing trees to shade coffee plants and minimizing pesticide use, the program uses demonstration plots that allow farmers to see the benefits for themselves, with 30 such plots already established to date.

"We have seen so much improvement since the training program started. The impact of climate change will compel farmers to adopt agricultural practices more in line with international standards. LDC is committed to helping farmers achieve this positive development."

LDC Senior Coffee Agronomist Tin Nguyen, who now works on this project in Đắk Lắk, where he grew up on a coffee farm.

¹ Hivos (2018), Coffee Barometer 2018 (citing Oxfam (2002), Mugged. Poverty in your coffee cup)
² World Coffee Research (2017), Annual Report 2017, Creating the Future of Coffee

Cotton

As a natural fiber, cotton has significant sustainability advantages over synthetic alternatives like polyester, and can be promoted as a responsible way to clothe the world's growing population. Cotton supply chains, however, are not without challenges.

Targets 2018

Buy 25% more Better Cotton year-on-year (using 2013 as a baseline)

Completion: 2018

Status: Completed

New Targets

Purchase 125% more Better Cotton than in 2013

Completion: 2018

Status: Completed

Increase our BCI Kazakhstan partnership to 700 farmers

Completion: 2019

Status: In progress

Increase our BCI Kazakhstan partnership to 700 farmers

Target: 2019

Train 10,000 farmers in Maharashtra, India

Target: 2019

Train 100,000 farmers in Zambia

Target: 2020

Increase Better Cotton purchased compared to 2018 by 10%

Target: 2019

Increase Better Cotton purchased over previous year by 10% using 2018 as a baseline

Target: 2020-2023

Purchase 50% more Better Cotton than in 2018 (using 2018 as a baseline)

Target: 2023



Leveraging LDC's leading industry position, we work to address a number of these, including those relating to SDGs on:

- Decent work and economic development – improving working conditions and productivity, particularly at farm level
- Human rights and gender equality – eradicating child and forced labor, and improving the position of women in smallholder farming communities
- Responsible production and water scarcity – helping farmers cut back water and chemical usage

Given these issues mostly arise in agriculture, a stage of the supply chain that we do not directly manage, we partner with other actors and experts to address them, particularly the Better Cotton Initiative (BCI), the International Labour Organization (ILO) and the Association of Cotton Merchants in Europe (ACME).

Advancing responsible production

Promoting the BCI's comprehensive sustainability standards, working with them on local projects and purchasing more BCI-certified cotton are the main ways in which we influence production methods and water usage, since we originate cotton from traders and ginners at origin, and only in Zambia from thousands of smallholders who supply the gins we operate there.

+140%
BCI cotton purchased over 2017
+824% over 2013

Purchases of BCI cotton 2015-2018 (MT)

2018	212,528
2017	88,449
2016	72,658
2015	91,614

In 2018, we exceeded our one- and five-year targets for purchasing BCI-certified cotton by a wide margin, through a massive leap in purchases from US origins and a steady upward trajectory in other areas.

The leap in US purchases is the result of promotional efforts in 2017 to show brands and retailers first hand the excellent work that many US farmers do. As we had hoped, increased demand for Better Cotton products allowed us to increase our own purchases.

Addressing labor issues in Uzbekistan and Burkina Faso

We are pleased to report on the excellent results of the ILO's work with the Uzbek government to eliminate child labor from cotton farming activities in the country, supported by LDC and other ACME members over the last five years (see page 31). After the 2018 harvest, the ILO reported that child labor is no longer a concern in Uzbekistan, though they will continue to monitor the situation.

That said, our attention is now drawn to concerns about child labor in Burkina Faso. Although Cotton Made in Africa (CMiA) certifies all the cotton we originate from the country, and while we support programs that train local farmers to avoid involving children in hazardous work, we will also investigate how best to work with our suppliers and the ILO to that end.

Reaching 10,000 farmers in India

In 2018, we partnered with the Better Cotton Growth and Innovation Fund, funded by the Sustainable Trade Initiative (IDH), and Indian cotton ginner Puneet Enterprises to share sustainable agricultural practices with 10,000 smallholder cotton farmers in Maharashtra, India.

The aim is to help these farmers tackle some of the social, economic and climate-related challenges they face, such as gender inequality, dependence on credit and unpredictable weather conditions.

Halfway through the project, many participants have already experienced the benefits. Cost of cultivation has decreased by 30 to 35% on average among participants, and the quality of cotton harvested has also increased, with the prospect of better prices on the horizon.

By March 2019, we expect to have trained all 10,000 farmers in techniques such as intercropping for biodiversity, in the proper use of fertilizers and pest control methods, and on how women can participate fully in farming.

We hope to report on the successful completion of this initiative next year.



Renewed connections in Zambia

In 2013, we reported with great optimism on a project that our ginning joint venture in Zambia had started in partnership with CMiA, and which subsequently ran into difficulties.

That project received new life in 2018, as we took 100% control of the local ginning operation, with 5 gins and 90,576 smallholder farm suppliers, and reopened the local partnership with CMiA.

Funded by Cotton Expert House Africa, and learning from past challenges, the new project will train 100,000 farmers on agricultural best practice over the next 3 years, aiming to help them improve their livelihoods while reducing their environmental impact. We have already reached almost 50,000 farmers to date.

Alongside this formal project, LDC is looking to develop additional programs to help communities around our operations. For example, we have started to work with local schools to increase capacity, teach parents about the importance of attendance and move communities away from relying on child labor. Other efforts include:

- Supporting borehole drilling for clean water and constructing latrines
- Helping members of women's clubs with start-up capital for their new, income-generating ideas
- Educating farmers on the importance of insurance, in case of weather events or pest infestations

2019 and beyond

We are now refreshing our targets for the next five years. Our work with BCI will continue and we have new targets for purchasing BCI-certified cotton, as well as country-specific targets for Kazakhstan, India and Zambia.

Partnering BCI in Kazakhstan

LDC has been the implementing partner for BCI in Kazakhstan since 2016. The aim is to increase the volume of BCI cotton produced and raise the origin's sustainability profile with spinners around the world.

We began with four agronomists dedicated to the project, working with farmers in the southern region of Makhtaaraal, and with three years of financial support from the German Development Agency (GIZ). We now employ eight dedicated agronomists and managed to reach 334 farmers by the end of 2018.

The project helps farmers to apply BCI principles, entitling them to certification, and then monitors compliance through audits. In 2018, over 6,000 tons of BCI-certified seed cotton was produced in the region, more than double the volume produced in 2017.

Despite the mandatory end to GIZ's three-year funding, LDC continues to drive the project forward and we are optimistic that we will succeed in bringing the targeted total number of 700 farmers on board by the end of 2019.



Soybeans

Soybeans are the world's most efficient source of protein per hectare¹ and an important source of animal feed, biofuel and food products for human consumption.

Production of soy has grown tenfold in the last 50 years² and demand is expected to continue increasing rapidly, given predictions of rising global consumption of meat and food overall. Yet it is crucial that this demand be met without resorting to deforestation or conversion of high value ecosystems.

While our soy origination activities span North and South America, the main land conversion issues arise in relation to soy purchased from Brazil, Argentina and Paraguay.

Particular concerns involve minimizing damage to richly biodiverse areas such as the Cerrado, Gran Chaco and Amazon biomes. To avoid further deforestation and restrict soybean cultivation to land that has already been cleared, it is crucial that all soy value chain operators work together to source only from appropriate areas.

LDC therefore works with a range of stakeholders towards responsible consumption and production (SDG 12) goals to:

- **Prevent deforestation and conversion of land with high conservation value**
- **Safeguard water sources and biodiversity**
- **Drive more sustainable soy production across the value chain globally**

Soy Sustainability Policy

As mentioned in last year's Sustainability Report, we launched LDC's global Soy Sustainability Policy in 2018, reinforcing the company's No Deforestation, No Peat, No Exploitation commitment and focusing specifically on soy production.

Our policy differs from others in the industry in its intention to engage and influence all value chain actors to prevent the financing of, or participation in, the conversion of native vegetation in areas deemed to be of high ecological value, such as the Cerrado biome.

In 2018, we communicated our policy to major suppliers in the main municipalities where we originate. This process will continue in 2019, and has been integrated into our workstream on supply chain mapping and financial incentive creation. The original target for communicating the policy to all suppliers has therefore been amended to reflect the need to focus on municipalities defined as having a high risk of deforestation.

Targets for 2019 connected to implementing the new policy include:

- Incentivizing producers to preserve areas of native vegetation, even if they are legally entitled to clear it
- Tackling land use challenges in the Cerrado through the World Business Council for Sustainable Development's (WBCSD) Soft Commodities Forum (SCF) (see box right) and the Cerrado Working Group
- Mapping soy supply chains to farm-level, and monitoring sourcing activities across Brazil and Argentina
- Sourcing certified sustainable soy, where possible and in line with demand

Targets 2018

Ensure all LDC suppliers in Brazil are registered in CAR (Brazilian Rural Environmental Registry)	Launch FEFAC-approved certification scheme	Train all relevant LDC employees on our new soy policy	Communicate our new soy policy to all major suppliers
Completion: 2018	Completion: 2018	Completion: 2018	Completion: 2018
Status: Amended	Status: Completed	Status: Completed	Status: Amended

Reporting through the SCF

Our work with the SCF to conserve the Cerrado is outlined on page 31, focusing on a process to trace and report on any soy procured, directly or indirectly, from the Cerrado, particularly in 25 municipalities defined as high-risk areas.

As part of this, LDC will publish the following figures twice a year starting in 2019:

- Percentage of soy sourced from the Cerrado
- Percentage of soy sourced from the 25 municipalities identified as high risk
- Percentage of direct and indirect purchases from those 25 municipalities

The SCF will also publish the project parameters, including the criteria for what constitutes a "high risk" municipality, and leading NGO Proforest will oversee the whole process and make recommendations for any improvements.

Progress in Brazil

Beyond training employees and publicizing our new policy among suppliers, LDC engaged in several new projects in the country in 2018.

In trying to motivate growers to preserve native vegetation areas that they are legally entitled to clear for soy farming, we have identified areas of land that are presently degraded or used for pasture to encourage expansion of soy production there, and will look to set up credit lines to facilitate this in 2019.

Alongside the SCF's work (see left), we have continued to participate in the Cerrado Working Group – a multi-stakeholder group whose mission is to eliminate conversion of native vegetation in that region in the shortest timeframe possible, reconciling social, economic and environmental interests.

We also remained active in Grupo de Trabalho da Soja (the Soy Working Group), which focuses on implementing the moratorium on growing soy in the Amazon by preventing the trade of soybeans cultivated on areas deforested since 2008. LDC has been a signatory to Brazil's Soy Moratorium since 2006.

Similarly, we continued to take part in Associação Brasileira da Indústria de Óleos Vegetais (ABIOVE), a group that brings together oilseed processors and merchants and monitors their implementation of anti-deforestation and conversion goals, including the Soy Moratorium and Cerrado Working Group.

As part of these efforts, we contributed to the launch of Agroideal, a free online, intelligence system that helps industry operators make informed decisions and territorial assessments relating to investments in soy.

Traceability being fundamental to these activities, in 2019 we aim to trace 100% of the soy we originate in Brazil to farm level. Since this wider traceability work goes beyond how we were expecting to use suppliers' CAR registration we have amended that target to be included in this work.

Fair and sustainable development
Environmental impact studies and licensing are at the heart of LDC's major project to develop new export routes in northern Brazil, along the Tapajós, Amazon and Pará rivers. Our own studies lasted two years, covering impacts on communities, soil, air, water, flora and fauna, and we now await the final stage of government approvals, which comprises a year of analysis by their experts.

Creating economic development and positive local community impacts is also essential, and as the project will introduce new vessels and increase river traffic, we want to minimize risk to local communities who have long used the river for their own transport. Accordingly, we have already set up an educational program on navigational safety in partnership with the Brazilian Navy, and distributed lifejackets, reflective tape and guidance to local owners of small vessels.

Certification in Brazil
2018 saw the successful launch of LDC's own Sustainable Agriculture certification scheme in Brazil, fully approved by the International Trade Centre as meeting all FEFAC (European Feed Manufacturers' Association) certification standards, including those relating to High Conservation Value areas. As a next step, in 2019 we will begin working with farmers to build a certified supply chain thereby linking our sustainability ambitions with customer requirements.

¹ European Soy Monitor, 2019
² WWF, The Growth of Soy, Impacts and Solutions, 2014

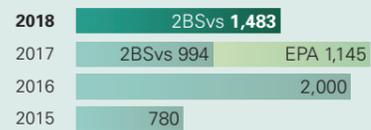


Argentina

Certified Sustainable Biodiesel (KMT)



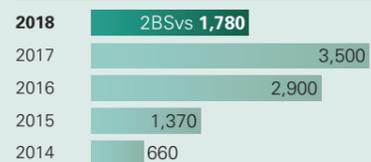
Sustainable Soybeans (KMT)



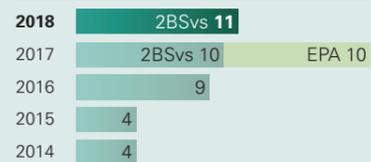
Certified Farms



Certified Hectares (Kha)



Warehouses (own)



Warehouses (third party)



Progress in Argentina

As part of a detailed supply chain mapping and risk assessment exercise in the municipalities from which LDC sources soybeans directly from farmers in the country, we identified:

- Native forest in each municipality
- Any record of recent deforestation
- Legal categorization of the land according to the Argentinian Forest Code

The results of this exercise showed that the risk level for our Argentina supply chain is very low.

Looking beyond our existing supply chain, and keen to ensure the sustainability of future purchases, in 2018 we contributed to the Agroideal multi-stakeholder group that is identifying areas where expanding soy farming is suitable in Argentina, in order to avoid any deforestation or environmental damage.

We are also looking to conduct proprietary mapping of other areas of the country, particularly in the north, to identify opportunities to convert existing pastureland and subsequently incentivize this approach, similar to our efforts in Brazil.

Certification in Argentina

Over 50% of the soybeans we originated from Argentina in 2018 were 2BSvs certified for EU biofuel sales. As import duties imposed by the US government made EPA (Environmental Protection Agency) certified biodiesel from Argentina financially unattractive to customers, we ceased selling it in 2017. Although we remain one of the largest exporters of soybean biodiesel from Argentina, our total certified volumes are lower than in past years (see graph left).

Aiming to sell more certified soy in the future, in 2018 we analyzed our supply chain against the FEAC-approved Sustainable Feed Standard (SFS) and will now seek certification to begin sales of certified soybean meal for the 2019-20 harvest.

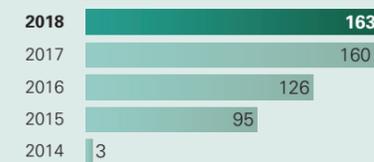
Alongside certification and biodiesel efforts, we have worked with a wide group of stakeholders to set a default greenhouse gas (GHG) emission value for Argentinian soybean cultivation, in order to make GHG savings from biodiesel clear to the market.

Paraguay

Sustainable Soybeans (KMT)



Certified Farms



Certified Hectares (Kha)



Progress in Paraguay

Although Paraguay represents a smaller proportion of our soy activities, and in some cases raises a different set of issues, we have worked closely with other operators in the sector to promote sustainable practices among local businesses and are now exploring how to encourage our soy suppliers to participate in a certification scheme.

Exploration started with LDC joining the Paraguay United Nations (PNUD) Green Commodities Program, to give a merchant's perspective on industry issues and barriers to sustainable development, such as the lack of clarity on land ownership in many rural areas.

Participation in this program may also provide opportunities to promote sustainable practices among farming cooperatives that engage with PNUD, accelerating progress across the country.

2019 and beyond

Over the next few years, we will continue to build on LDC's global Soy Sustainability Policy through mapping, traceability and certification efforts, as well as farmer awareness and incentive schemes, to protect land of high conservation value.

In 2019 we will certify farmers and secure volumes through LDC's new Sustainable Agriculture certification scheme in Brazil, and launch a long-term credit financing facility. We will also take several steps to improve our mapping and monitoring capabilities across Brazil and Argentina, and start reporting Brazilian sourcing figures through the SCF platform to help protect high-risk areas.

New Targets

Report Brazilian soy origination figures twice on SCF platform

Target: 2019

Launch a long-term credit financing facility that incentivizes expansion to existing pasture and degraded land

Target: 2019

Trace 100% of direct purchases in Brazil to farm level

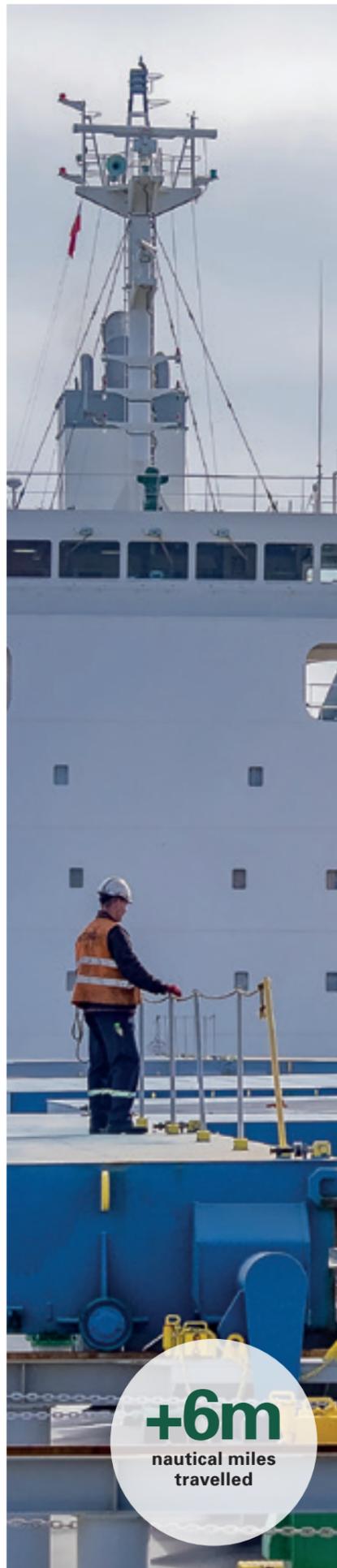
Target: 2019

Map areas suitable for soy farming expansion in northern Argentina to avoid deforestation and environmental damage

Target: 2019

Communicate our soy policy to all major suppliers in high risk municipalities

Target: 2019



Freight

Owing to high volumes of traded goods travelling by sea, shipping presents important pollution issues.

Exhaust emissions from marine diesel engines account for a large majority of the transport sector's sulfur oxide (SO_x) emissions, and for a significant portion of nitrogen oxide (NO_x) and complex particulate matter releases, harmful to human health and the environment. Marine carbon dioxide (CO₂) emissions remain the most challenging issue, representing around 2% of global greenhouse gas emissions.¹

Although ocean freight remains the most environmentally friendly way to move cargo at scale, there is room to make a vast difference if leading companies like LDC take responsibility for driving positive change ahead of long-term public targets.

As one of the world's largest chartering entities today, we are committed to making every effort to operate responsibly, and to help create a more sustainable shipping industry, by helping to achieve SDGs covering:

- **Climate change – reducing greenhouse gas and other emissions**
- **Decent work – providing safe, healthy working environments and promoting the rights of those working on ships**
- **Peace, justice and strong institutions – proactively contributing to the responsible governance of our oceans**

Advancing industry goals

We support the International Maritime Organization (IMO) in taking bold steps to reduce permissible SO_x emissions from 3.5% m/m (mass per mass) to 0.5% m/m by January 2020 (with some special local zones capped at 0.1%), and to making NO_x reduction technology compulsory on board certain newly built vessels.

We are committed to complying with these regulations and are also actively taking steps to help the industry meet IMO goals to reduce CO₂ emissions intensity per ton-mile by 40% by 2030, and by 70% by 2050.

In parallel, we continue to work with top tier ship owners, shipyards, equipment makers and weather routing companies to optimize our fleet through better technology, including:

- Hulls with less resistance and special paint
- More efficient propellers and rudders
- Reducing adverse weather days

Throughout 2018, LDC increasingly relied on innovative sensors and satellite tracking data to optimize voyage duration, reducing fuel consumption at sea, and we are also collaborating with the IMO's Global Industry Alliance roundtable on just-in-time operation of ships to help cut down fuel consumption at port.

LDC can have the greatest impact on the vessels we operate under time charter, where we have more operational control. In 2018, we invested in SO_x and NO_x emission reduction equipment on some of these ships that are currently under construction.

Importantly, our collaboration with partners through the Sustainable Shipping Initiative (SSI) is ongoing, particularly on de-carbonization goals and the responsible recycling of ships.

¹ Source: International Energy Agency, Commentary: International Maritime Organization agrees to first long-term plan to curb emissions (April, 13th, 2018, <https://www.iea.org/newsroom/news/2018/april/commentary-imo-agrees-to-first-long-term-plan-to-curb-shipping-emissions.html> accessed April 2019)

Targets 2018

Publish 2018 emissions resulting from LDC freight activity	Complete study on chartering wind propelled vessels	Complete study on chartering dual LNG/gasoil propelled vessels	Contribute to SSI study on ships of the future
Completion: 2019	Completion: 2018	Completion: 2018	Completion: 2018
Status: Completed	Status: Amended	Status: Amended	Status: Amended

LDC's freight impact

To provide transparency on how we are working toward IMO goals, last year we set ourselves the goal to report on our annual emissions data.

Our freight activity in 2018 and its environmental profile breaks down as shown here to the right.

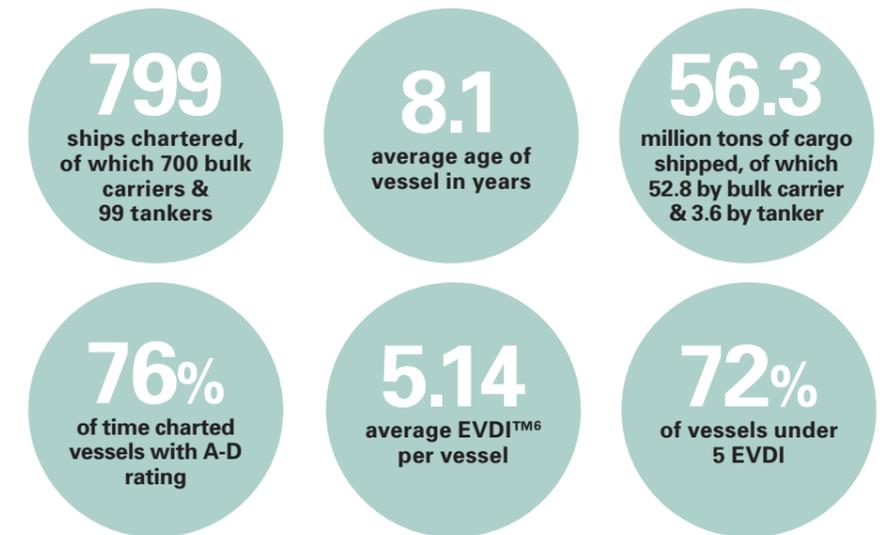
LDC's chartered fleet is on average 8.1 years old, compared to a global average fleet age of 9.8 and 12.33 years for bulk and tankers respectively.⁷ We strive to charter younger, more energy-efficient vessels.

Assessing our chartered fleet against the standard European energy efficiency scale, using the Rightship GHG emission-rating tool, we can see that over three quarters of our fleet rates in the A-D range. This is a slight improvement from last year.

Overall emissions declined by 5% year-on-year in 2018, to an average of 5.1 grams of CO₂/ton-mile, through efforts to charter a more energy-efficient fleet and employ the most efficient vessels on longer voyages, and due also to covering less nautical mileage.

Looking at the LDC fleet as a whole, 62% of vessels used had an EVDI energy efficiency rating less than 5 grams of CO₂/ton-mile.⁸

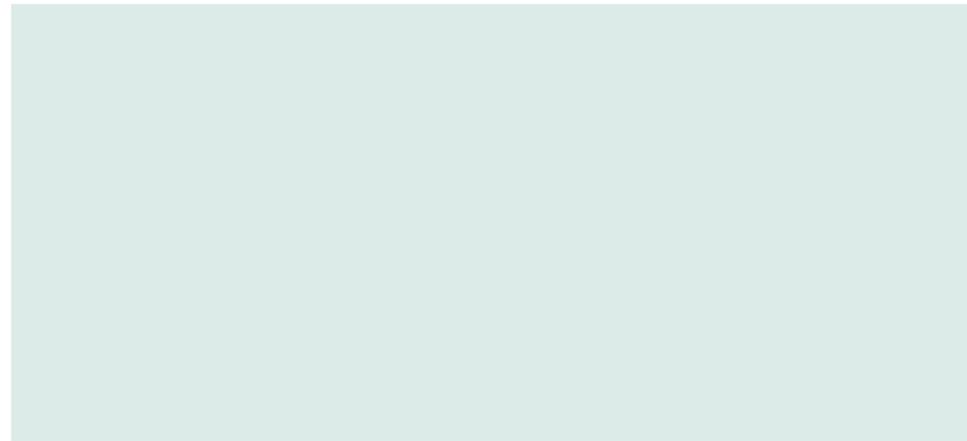
In 2019, we will commence live monitoring of our emissions rather than relying on Rightship's EVDI projections for the fleet. This more accurate data will enable us to set ambitious reduction targets, with confidence that we can be truly transparent about our performance.



Fuel Oil Consumption under Time Chartered vessels (MT)	
	2018
Bulker IFO ²	581,282
Bulker MGO ³	26,283
Tanker IFO	57,915
Tanker MGO	1,144
Calculated total CO₂ emissions (tons of CO₂)	2,078,647⁴

GHG rating of vessels 2018 ⁵	
	units
GHG A	5
GHG B	104
GHG C	138
GHG D	365
GHG E	140
GHG F	45
GHG G	2

² IFO is heavy fuel oil ISO 8217 grade RME, with a maximum of 3.5% sulfur content and 3.1144 tons of CO₂ emitted per ton of fuel burned
³ MGO is Marine Gasoil, with a maximum of 0.1% sulfur content and 3.2060 tons of CO₂ emitted per ton of fuel burned. MGO is used in Sulfur Emissions Control Areas (SECAs), which are geographical areas with stricter controls on a range of airborne emissions.
⁴ Figures for this graph relate only to time charter vessels, i.e. where LDC has greater operational control
⁵ Source of ratings: Rightship rating of LDC chartered fleet
⁶ EVDI is Rightship's proprietary rating measuring a ship's CO₂ emissions per ton nautical mile
⁷ Source: Clarksons, April 2019
⁸ See footnote 5 above



Studies toward more sustainable shipping

In 2018, we completed most of the work on our study on chartering wind-propelled vessels. Although we are still validating certain assumptions on saving sea days with external input we expect the study to be completed in 2019, and see an opportunity to charter such vessels in the new fuel environment after 2020.

Our study on chartering dual LNG/gasoil propelled vessels is also ongoing. Work to date has given us greater confidence in infrastructure developments for bunkering LNG and the design of new tanks on certain large ships. We will continue to explore remaining issues and expect to complete this study in 2019 as well.

Alongside our own studies, we are participating in the Sustainable Shipping Initiative's biofuel working group. With this group's study due to be published in 2019, we have amended our target accordingly.

2019 and beyond

As we start to monitor actual emissions with granularity, we will compare our 2019 data to EVDI-based notional efficiency data from 2018, targeting a 5% reduction while recognizing that the comparison will be imperfect. We will also set accurate and ambitious reduction targets for 2022.

Acknowledging that this challenging work on environmental goals should not detract from equally important concerns regarding human rights at sea, we shall complete research on how LDC can make an impact in this area and report on our findings in next year's report.



New Targets

Complete research on how LDC can make an impact on human rights at sea

Target:
2019

Reduce CO₂ emissions from LDC's fleet by 5% per ton-mile (comparing 2019 actual emissions to 2018 notional data)

Target:
2019

Set target for LDC fleet emissions reduction per ton-mile for 2022

Target:
2019

Complete study on chartering wind propelled vessels

Target:
2019

Complete study on chartering dual LNG/gasoil propelled vessels

Target:
2019

Contribute to SSI study on ships of the future

Target:
2019

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Louis Dreyfus Company B.V.
Westblaak 92
3012 KM Rotterdam
The Netherlands

www ldc com